MOTOR MAGAZINE'S 1948

Canadian Service Data Book

Price $1.00

PUBLISHED ANNUALLY BY MOTOR MAGAZINE, TORONTO

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Published Annually as a Supplement to

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ENGINE SPECIFICATIONS

Make and Model	Year	No. Cylinders and Valve Arrangement	Bore and Stroke	Compression Ratio—Standard	Cranking Speed (R.P.M.)	Compression Pressure at Cranking Speed (lbs.)
AUSTIN (English)						
A.40	'48	4-I	2½x3½	7.2	—	—
BUICK						
44 Special	'39	8-I	3 3/32x4 1/8	6.15	—	112
46 Century	'39	8-I	3 7/16x4 5/16	6.25	—	114
48 Roadmaster	'39	8-I	3 7/16x4 5/16	6.25	—	114
49 Limited	'39	8-I	3 7/16x4 5/16	6.25	—	114
44-00 & 45-00	'40	8-I	3 3/32x4 1/8	6.10	—	112
47 Roadmaster	'40	8-I	3 7/16x4 5/16	6.25	—	114
Special 44	'41	8-I	3 3/32x4 1/8	6.50	—	142
Super 45	'41	8-I	3 3/32x4 1/8	7.00	—	148
Century 46	'41	8-I	3 7/16x4 5/16	7.00	—	151
Roadmaster 47	'41	8-I	3 7/16x4 5/16	7.00	—	151
Limited 49	'41	8-I	3 7/16x4 5/16	7.00	—	151
Series 44	'42	8-I	3 3/32x4 1/8	6.50	—	142
Series 46	'42	8-I	3 7/16x4 5/16	7.00	—	151
Series 50	'46	8-I	3 3/32x4 1/8	6.30	—	112
Series 70	'46	8-I	3 7/16x4 5/16	6.60	—	114
Series 40	'47	8-I	3 3/32x4 1/8	6.30	—	112
Series 50	'47	8-I	3 3/32x4 1/8	6.30	—	112
Series 70	'47	8-I	3 7/16x4 5/16	6.60	—	114
Series 40, 50, 70	'48	(Not distributed in Canada)				
CADILLAC						
V-8 61	'39	8-L	3½x4½	6.25	—	155
V-8 60S	'39	8-L	3½x4½	6.25	—	155
V-8 75	'39	8-L	3½x4½	6.70	—	170
V-16 90	'39	16-I	3¼x3¼	6.75	—	180
V-8 62	'40	8-L	3½x4½	6.25	—	155
V-8 60S	'40	8-L	3½x4½	6.25	—	155
V-8 75	'40	8-L	3½x4½	6.70	—	170
All Series	'41	8-L	3½x4½	7.25	—	182
All Series	'42	8-L	3½x4½	7.25	—	102
V-8	'46	8-L	3½x4½	7.25	—	100
V-8	'47	8-L	3½x4½	7.25	—	100–105
V-8	'48	(Not distributed in Canada)				
CHEVROLET						
Six	'39	6-I	3½x3¾	6.25	—	112
Six	'40	6-I	3½x3¾	6.25	—	112
Six	'41	6-I	3½x3¾	6.25	—	112
Six	'42	6-I	3½x3¾	6.25	—	112
Six	'46	6-I	3½x3¾	6.50	—	—
Six	'47	6-I	3½x3¾	6.50	210–220	110
Six	'48	6-I	3½x3¾	6.50	210–220	110

Make and Model	Year	No. Cylinders and Valve Arrangement	Bore and Stroke	Compression Ratio—Standard	Cranking Speed (R.P.M.)	Compression Pressure at Cranking Speed (lbs.)
CHRYSLER						
Royal 6 C-22	'39	6-L	3 3/8x4 1/4	6.50	—	150
DeLuxe 8 C-23	'39	8-L	3 1/4x4 7/8	6.80	—	—
Cus. Imp. 8 C-24	'39	8-L	3 1/4x4 7/8	6.80	—	—
Royal 6 C-25	'40	6-L	3 3/8x4 1/2	6.50	—	140
DeLuxe C-26	'40	8-L	3 1/4x4 7/8	6.80	—	150
Cus. Imp. C-27	'40	8-L	3 1/4x4 7/8	6.80	—	150
Royal 6 C-28	'41	6-L	3 3/8x4 1/2	6.80	—	115
New York C-30	'41	8-L	3 1/4x4 7/8	6.80	—	120
Crown Imp. C-33	'41	8-L	3 1/4x4 7/8	6.80	—	120
Royal 6 C-34	'42	6-L	3 7/16x4 1/2	6.80	—	130
New York C-36	'42	8-L	3 1/4x4 7/8	6.80	—	130
Crown Imp. C-37	'42	8-L	3 1/4x4 7/8	6.80	—	130
C-38W, C-38S	'46	6 L	3 7/16x4 1/2	6.60	—	125–135
Six-C38W, C38S	'47	6-L	3 7/16x4 1/2	6.60	150	125–135
Eight-C39, C40	'47	8-L	3 1/4x4 7/8	6.70	150	130
Six-C38W, C38S	'48	6-L	3 7/16x4 1/2	6.60	150	125–135
Eight-C39, C40	'48	8-L	3 1/4x4 7/8	6.70	150	130
CROSLEY						
Four	'48	4-I	2½x2¼	7.5	125-135§	125–135§
DE SOTO						
Six S-6	'39	6-L	3 3/8x4 1/4	6.50	—	140
Six S-7	'40	6-L	3 3/8x4 1/4	6.50	—	145
Six S-8	'41	6-L	3 3/8x4 1/4	6.80	—	115
Six S-10	'42	6-L	3 7/16x4 1/4	6.80	—	130
S-11	'46	6-L	3 7/16x4 1/4	6.80	—	125–135
S-11	'47	6-L	3 7/16x4 1/4	6.80	150	125–135
S-11	'48	6-L	3 7/16x4 1/4	6.80	150	125–135
DODGE						
Stand. 6 D-13	'39	6-L	3 3/8x3 3/4	6.70	—	140
DeLuxe 6 D-12	'39	6-L	3 3/8x3 3/4	6.70	—	140
Six D-11	'39	6-L	3 3/8x4 1/16	6.70	—	140
Stand. 6 D-15	'40	6-L	3 3/8x4 1/16	6.50	—	140
DeLuxe 6 D-16	'40	6-L	3 3/8x4 1/16	6.50	—	140
Six D-14	'40	6-L	3 3/8x4 1/16	6.50	—	140
Kingsway 6 D-20	'41	6-L	3 3/8x4 1/16	6.50	—	100
DeLuxe 6 D-21	'41	6-L	3 3/8x4 1/16	6.50	—	100
Lux. Liner D-19	'41	6-L	3 3/8x4 1/16	6.50	—	100
De Luxe D-23	'42	6-L	3 3/8x4 1/16	6.50	—	130
Custom D-22	'42	6-L	3 3/8x4 1/4	6.80	—	130
D-25	'46	6-L	3 3/8x4 1/16	6.50	—	125–135
D-24	'46	6-L	3 3/8x4 1/4	6.80	—	125–135
D-25	'47	6-L	3 3/8x4 1/16	6.50	125	125–135
D-24	'47	6-L	3 3/8x4 1/4	6.80	125	125–135
D-25	'48	6-L	3 3/8x4 1/16	6.70	125	125–135
D-24	'48	6-L	3 3/8x4 1/4	6.80	125	125–135

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For key to abbreviations see page 13

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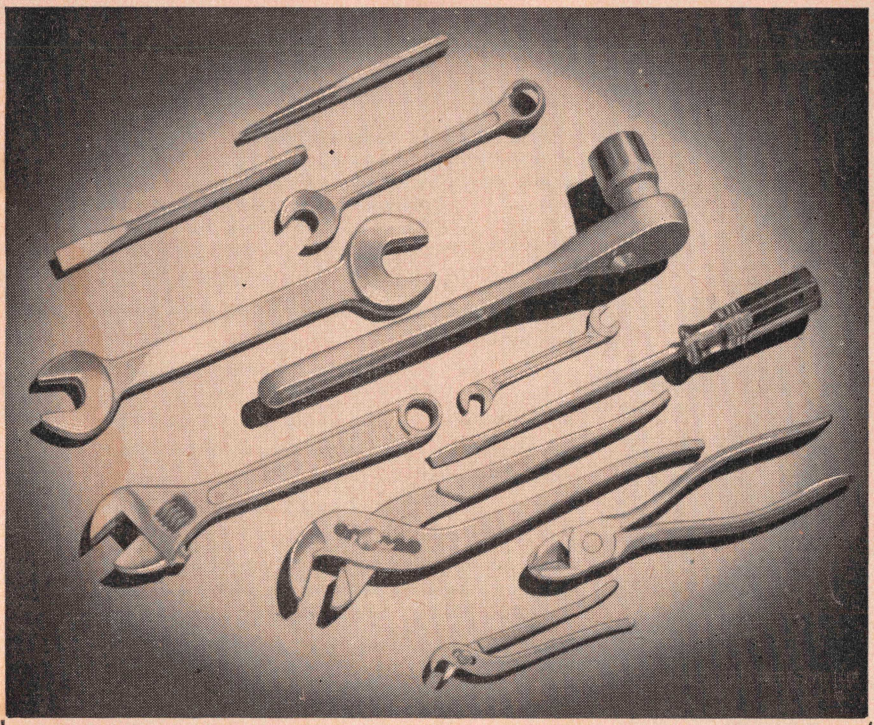
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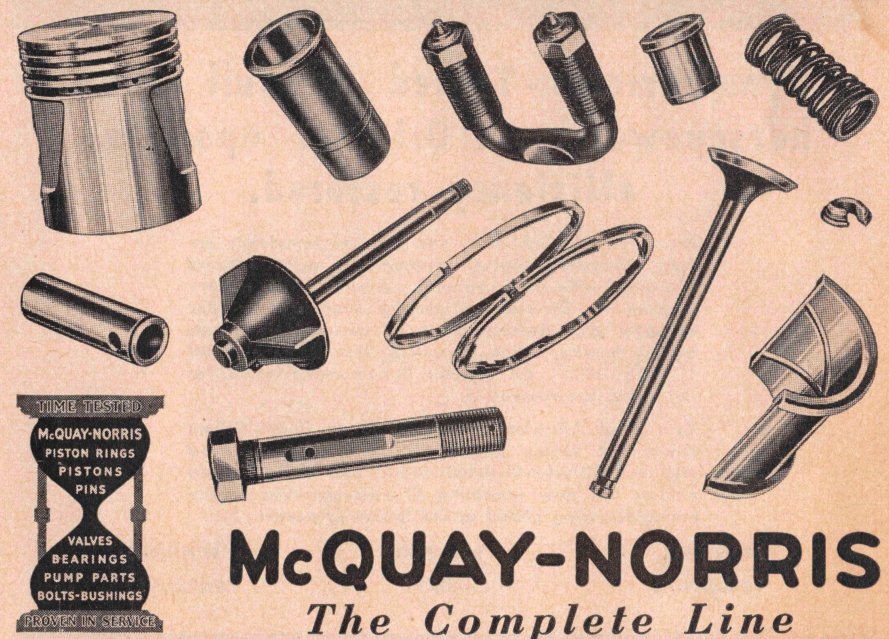
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ENGINE SPECIFICATIONS

Make and Model	Year	No. Cylinders and Valve Arrangement	Bore and Stroke	Compression Ratio—Standard	Cranking Speed (R.P.M.)	Compression Pressure at Cranking Speed (lbs.)
FORD						
V-8 85	'39	8-L	3 1/16x3 3/4	6.12	—	105
V-8 85	'40	8-L	3 1/16x3 3/4	6.15	—	100
V-8 85	'41	8-L	3 1/16x3 3/4	6.20	—	100
V-8 85	'42	8-L	3 1/16x3 3/4	6.20	—	100
De Luxe	'46	8-L	3 1/16x3 3/4	6.40	—	100
Super DeLuxe	'46	8-L	3 1/16x3 3/4	6.40	—	100
DeLuxe & Super	'47	8-L	3 5/16x3 3/4	6.80	100	110
DeLuxe & Super	'48	8-L	3 5/16x3 3/4	6.80	100	110
FRAZER						
F-47	'47	6-L	3 5/16x4 3/8	6.86	70	120
F-47&C; 485&6	'48	6-L	3 5/16x4 3/8	7.3	70	120–130∅
GRAHAM						
Six-96	'39	6-L	3 1/4x4 3/8	6.40	—	130
Six-97	'39	6-L	3 1/4x4 3/8	6.70	—	130
Six-107	'40	6-L	3 1/4x4 3/8	6.65	—	130
Six-108	'40	6-L	3 1/4x4 3/8	6.65	—	130
HUDSON						
Six-93	'39	6-L	3x5	6.25	—	120
Six-91	'39	6-L	3x5	6.25	—	120
Six-92	'39	6-L	3x5	6.25	—	120
Eight-95	'39	8-L	3x4 1/2	6.25	—	118
Eight-97	'39	8-L	3x4 1/2	6.25	—	118
Six-90	'39	6-L	3x4 1/8	6.50	—	115
Six-98	'39	6-L	3x4 1/8	6.50	—	115
Six-41	'40	6-L	3x5	6.50	—	120
Six-43	'40	6-L	3x5	6.50	—	120
Six-48	'40	6-L	3x5	6.50	—	120
Eight-44	'40	8-L	3x4 1/2	6.50	—	119
Eight-47	'40	8-L	3x4 1/2	6.50	—	119
Six-40	'40	6-L	3x4 1/8	7.10	—	125
Six-10	'41	6-L	3x4 1/8	7.25	—	125

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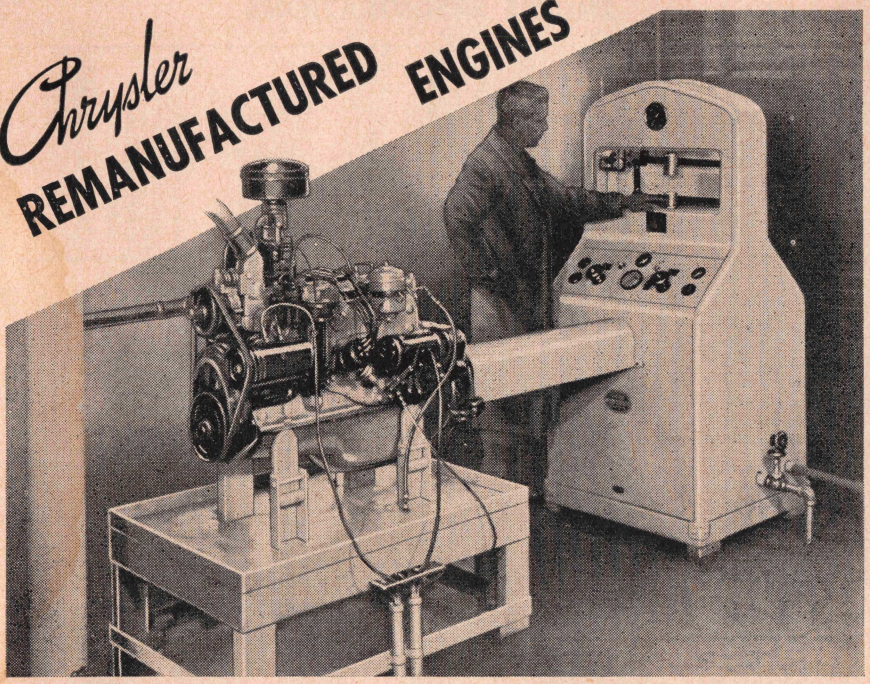
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★ *Turn to page 88 for more information*

ENGINE SPECIFICATIONS

Make and Model	Year	No. Cylinders and Valve Arrangement	Bore and Stroke	Compression Ratio—Standard	Cranking Speed (R.P.M.)	Compression Pressure at Cranking Speed (lbs.)
HUDSON (Continued)						
Six-11, 12, 18	'41	6-L	3x5	6.50	—	120
Eight 14, 15, 17	'41	8-L	3x4 1/2	6.50	—	119
"6"-20 Sp.	'42	6-L	3x4 1/8	7.25	—	125
"6"-20P, 21, 22	'42	6-L	3x5	6.50	—	120
"8"-24, 25, 27	'42	8-L	3x4 1/2	6.50	—	119
Six 51, 52	'46	6-L	3x5	6.50	—	120
Eight 53, 54	'46	8-L	3x4 1/2	6.50	—	119
Six 171, 172	'47	6-L	3x5	6.50	125	120
Eight 173, 174	'47	8-L	3x4 1/2	6.50	125	119
Series 481	'48	6-L	3 9/16x4 3/8	6.50	150	110
Series 482	'48	6-L	3 9/16x4 3/8	6.50	150	110
Series 483	'48	8-L	3x4 1/2	6.50	150	119(f)
Series 484	'48	8-L	3x4 1/2	6.50	150	119(f)
HUPMOBILE						
6-922E	'39	6-L	3 1/2x4 1/4	5.75	—	100
8-925H	'39	8-L	3 9/16x4 3/4	5.80	—	113
KAISER						
K-100	'47	6-L	3 9/16x4 3/8	6.86	70	120
K-100&1; 481&2	'48	6-L	3 9/16x4 3/8	7.3	70	120–130Ø
LA SALLE						
39-50	'39	8-L	3 3/8x4 1/2	6.25	—	155
40-50 and 40-52	'40	8-L	3 3/8x4 1/2	6.25	—	155
LINCOLN						
Continental	'41	12-L	2 7/8x3 3/4	7.00	—	110
Linc. & Cont.	'47	12-L	2 7/8x3 3/4	7.30	100	125
Linc. & Cont.	'48	12-L	2 7/8x3 3/4	7.30	100	125
MERCURY						
Mercury	'39	8-L	3 9/16x3 3/4	6.50	—	120
Mercury	'40	8-L	3 9/16x3 3/4	6.50	—	100
Mercury	'41	8-L	3 9/16x3 3/4	6.30	—	100
Mercury	'42	8-L	3 9/16x3 3/4	6.40	—	100
114 & 114X	'46	8-L	3 9/16x3 3/4	6.80	—	110
118	'46	8-L	3 9/16x3 3/4	7.20	—	115
114, 114X & 118	'47	8-L	3 9/16x3 3/4	7.20	100	115
114, 114X & 118	'48	8-L	3 9/16x3 3/4	7.20	100	115
MONARCH						
V-8	'46	8-L	3 9/16x3 3/4	6.80	—	110
V-8	'47	8-L	3 9/16x3 3/4	6.80	100	110
V-8	'48	8-L	3 9/16x3 3/4	6.80	100	110

Make and Model	Year	No. Cylinders and Valve Arrangement	Bore and Stroke	Compression Ratio—Standard	Cranking Speed (R.P.M.)	Compression Pressure at Cranking Speed (lbs.)
NASH						
Lafayette	'39	6-L	3 5/8x4 3/8	6.30	—	110
Ambassador 6	'39	6-I	3 5/8x4 3/8	6.00	—	110
Ambassador 8	'39	8-I	3 1/8x4 1/4	6.00	—	110
Lafayette	'40	6-L	3 5/8x4 3/8	6.30	—	110
Ambassador 6	'40	6-I	3 5/8x4 3/8	6.00	—	125
Ambassador 8	'40	8-I	3 1/8x4 1/4	6.00	—	110
Ambassador 600	'41	6-L	3 1/8x3 3/4	6.87	—	120
Ambassador 6	'41	6-I	3 5/8x4 3/8	6.30	—	125
Ambassador 8	'41	8-I	3 1/8x4 1/4	6.50	—	110
4240—"6"	'42	6-L	3 1/8x3 3/4	6.87	—	120
4260—"6"	'42	6-I	3 5/8x4 3/8	6.50	—	125
4280—"8"	'42	8-I	3 3/8x4 1/4	6.60	—	110
Series 4640	'46	6-L	3 1/8x3 3/4	7.10	—	120
Series 4660	'46	6-L	3 5/8x4 3/8	7.00	—	125
Series 4740	'47	6-L	3 1/8x3 3/4	7.10	350	120
Series 4760	'47	6-L	3 5/8x4 3/8	7.02	350	125
Series 4840	'48	6-L	3 1/8x3 3/4	7 to 1	350	120
Series 4860	'48	6-I	3 5/8x4 3/8	7.1-1	350	125
OLDSMOBILE						
Six	'39	6-L	3 7/16x4 1/8	6.10	—	79
35-00 & 36-00	'40	6-L	3 7/16x4 1/8	6.10	—	—
Six	'41	6-L	3 1/2x4 1/8	6.10	—	115
Eight	'41	8-L	3 1/4x3 7/8	6.30	—	105
Six	'42	6-L	3 1/2x4 1/8	6.50	—	102
Eight	'42	8-L	3 1/4x3 7/8	6.50	—	105
Six	'46	6-L	3 1/2x4 1/8	6.50	—	115
Eight	'46	8-L	3 1/4x3 7/8	6.50	—	107
Six	'47	6-L	3 1/2x4 1/8	6.50	100	102*
Eight	'47	8-L	3 1/4x3 7/8	6.50	100	105*
Six	'48	6-L	3 1/2x4 1/8	6.50	100	102*
Eight	'48	8-L	3 1/4x3 7/8	6.50	100	105*
PACKARD						
Six	'39	6-L	3 1/2x4 1/4	6.52	—	110
Eight	'39	8-L	3 1/4x4 1/4	6.41	—	110
Super 8	'39	8-L	3 5/16x5	6.45	—	110
Twelve	'39	12-L	3 5/16x4 1/4	6.30	—	110
Six	'40	6-L	3 1/2x4 1/4	6.39	—	110
Eight	'40	8-L	3 1/4x4 1/4	6.41	—	110
Super 8	'40	8-L	3 1/2x4 5/8	6.45	—	110
110	'41	6-L	3 1/2x4 1/4	6.39	—	—
120	'41	8-L	3 1/4x4 1/4	6.41	—	—
Super 8	'41	8-L	3 1/2x4 5/8	6.45	—	—
"6"—2000	'42	6-L	3 1/2x4 1/4	6.71	—	—
"8"—2001	'42	8-L	3 1/4x4 1/4	6.85	—	—

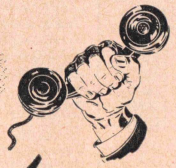
(Continued on page 13)

For key to abbreviations see page 13

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Ford Tractors

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Mercury Cars
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Mercury Trucks

FORD MOTOR COMPANY OF CANADA, LIMITED

★ *Turn to page 88 for more information*

ENGINE SPECIFICATIONS

Make and Model	Year	No. Cylinders and Valve Arrangement	Bore and Stroke	Compression Ratio—Standard	Cranking Speed (R.P.M.)	Compression Pressure at Cranking Speed (lbs.)
PACKARD—Continued						
Super 8-2003, 6	'42	8-L	3 1/2 x 4 5/8	6.85	—	—
2100	'46	6-L	3 1/2 x 4 1/4	6.71	—	—
2101 & 2111	'46	8-L	3 1/4 x 4 1/4	6.85	—	—
2103 & 2126	'46	8-L	3 1/2 x 4 5/8	6.85	—	—
2100 & 2130†	'47	6-L	3 1/2 x 4 1/4	6.71	—	—
2101 & 2111	'47	8-L	3 1/4 x 4 1/4	6.85	—	—
2103, 2106 & 2126	'47	8-L	3 1/2 x 4 5/8	6.85	—	—
2201 & 2211	'48	8-L	3 1/2 x 3 3/4	7.00	—	—
2202 & 2232	'48	8-L	3 1/2 x 4 1/4	7.00	—	—
2206 & 2233	'48	8-L	3 1/2 x 4 5/8	7.00	—	—
PLYMOUTH						
Six P-7	'39	6-L	3 3/16 x 3 3/4	6.70	—	140
De Luxe 6 P-8	'39	6-L	3 3/16 x 3 3/4	6.70	—	140
Six P-9	'40	6-L	3 3/16 x 4 1/16	6.50	—	140
De Luxe 6 P-10	'40	6-L	3 3/16 x 4 1/16	6.50	—	140
Roadking 6 P-11	'41	6-L	3 3/16 x 4 1/16	6.50	—	100
De Luxe 6 P-12	'41	6-L	3 3/16 x 4 1/16	6.50	—	100
De Luxe P-14	'42	6-L	3 3/16 x 4 1/16	6.50	—	130
P-15	'46	6-L	3 3/16 x 4 1/16	6.50	—	125–135
P-15	'47	6-L	3 3/16 x 4 1/16	6.50	125	125–135
P-15	'48	6-L	3 3/16 x 4 1/16	6.70	125	125–135
PONTIAC						
Chieftain	'39	6-I	3 9/16 x 3 3/4	6.50	—	112
Arrow	'39	6-I	3 1/2 x 3 3/4	6.25	—	112
Special 25-00	'40	6-L	3 7/16 x 4	6.50	—	—
Arrow 22-00	'40	6-I	3 1/2 x 3 3/4	6.25	—	112
Sixes	'41	6-L	3 9/16 x 4	6.50	—	f
Sixes	'42	6-L	3 9/16 x 4	6.50	—	f
Six	'46	6-L	3 9/16 x 4	6.50	—	160
Eight	'46	8-L	3 1/4 x 3 3/4	6.50	—	158
Six	'47	6-L	3 9/16 x 4	6.50	220	105–110
Eight	'47	8-L	3 1/4 x 3 3/4	6.50	220	105–110
Six	'48	6-L	3 9/16 x 4	6.50	220	105–110
Eight	'48	8-L	3 1/4 x 3 3/4	6.50	220	105–110

N.B.
Fleetleaders (1941-2-6-7-8) are 20 and 22 Series
Torpedo 6 & 8 (1941-2-6-7-8) are 25 and 27 Series respectively.
Streamliner 6 & 8 (1941-2-6-7-8) are 26 and 28 Series respectively.
Streamliner 6 & 8 (1948) not distributed in Canada.

Make and Model	Year	No. Cylinders and Valve Arrangement	Bore and Stroke	Compression Ratio—Standard	Cranking Speed (R.P.M.)	Compression Pressure at Cranking Speed (lbs.)
STUDEBAKER						
Champion "G"	'39	6-L	3x3 7/8	6.50	—	105
Comm. 6 (9A)	'39	6-L	3 5/16 x 4 3/8	6.00	—	105
President 8 (5C)	'39	8-L	3 1/16 x 4 1/4	6.00	—	105
Champion 2-G	'40	6-L	3x3 7/8	6.50	—	105
Champ. 7-G	'48	6-L	3x4	6.50	150	105
Comm. 15-A	'48	6-L	3 5/16 x 4 3/8	6.5	150	105
Comm. 6 (10A)	'40	6-L	3 5/16 x 4 3/8	6.00	—	105
President 8 (6C)	'40	8-L	3 1/16 x 4 1/4	6.00	—	105
Champ. 6-3G	'41	6-L	3x4	6.50	—	105
Comm. 6-11A	'41	6-L	3 5/16 x 4 3/8	6.50	—	105
President 8-7C	'41	8-L	3 1/16 x 4 1/4	6.50	—	105
Champ. 6-4G	'42	6-L	3x4	6.50	—	105
Comm. 6-12A	'42	6-L	3 5/16 x 4 3/8	6.50	—	105
President 8-8C	'42	8-L	3 1/16 x 4 1/4	6.50	—	105
Skyway	'46	6-L	3x4	6.50	—	105
Champ. 6-G	'47	6-L	3x4	6.50	—	105
Comm. 14A	'47	6-L	3 5/16 x 4 3/8	6.50	—	105
Champ. 7-G	'48	6-L	3x4	6.50	150	105
Comm. 15A	'48	6-L	3 5/16 x 4 3/8	6.50	150	105
WILLYS						
Four 48	'39	4-L	3 1/8 x 4 3/8	5.70	—	87
Overland 39	'39	4-L	3 1/8 x 4 3/8	6.35	—	105
Willys 440	'40	4-L	3 1/8 x 4 3/8	6.48	—	111
Willys Americar	'41	4-L	3 1/8 x 4 3/8	6.48	—	111
Willys Americar	'42	4-L	3 1/8 x 4 3/8	6.48	—	111
CJ-2A Uni. Jeep	'45	4-L	3 1/8 x 4 3/8	6.48	—	111
CJ-2A Uni. Jeep	'47	4-L	3 1/8 x 4 3/8	6.48	185	111
CJ-2A, 2&4WD.	'48	4-L	3 1/8 x 4 3/8	6.48	185	115
4 63	'48	4-L	3 1/8 x 4 3/8	6.48	150	115
6 63	'48	6-L	3x3 1/2	6.42	150	117

ABBREVIATIONS

f—155 at 1000 rpm.

(f)—Ar 125 r.p.m.

I—Valve in head

L—L-type block

*—Plus or minus 10. (At. 100 rpm.)

†—Series 2130 taxi cab, six cylinder (Packard)

§—Maximum ar 260 r.p.m.

∅—Throttle open.

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There is a C.A.E.A. Member-Distributor in Your City or Trading Centre:

BARRIE—Brennan's Auto Electric Service
BELLEVILLE—Quinte Battery Service Station
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BROCKVILLE—Welch & Johnston Limited
CALGARY—Hutton's Limited
CHARLOTTETOWN—Batt & MacRae
CHATHAM — Labombard Auto Electric Limited
CHICOUTIMI — Marcel Rochette Ltee
EDMONTON—Loveseth Limited
FORT WILLIAM — Dow's Auto Electric
GALT — Brewer's Auto Electric Limited
GUELPH—City Battery & Electrical Service
HAMILTON—Dell's Toronto & Hamilton Electric Co. Ltd.
HALIFAX—
Battery & Electric Service Ltd.
Halifax Ignition Limited
KINGSTON—Frontenac Auto Electric Service
KITCHENER—
Hart Battery & Ignition Co.
Kitchener Auto Electric Ltd.
LETHBRIDGE—Hutton's Limited
LONDON—Kightley Auto Electric
Universal Ignition & Battery Limited
MONCTON—Robert K. Buzzell
MONTREAL—
Auto Electric Limited
Battery & Electric Service Co.
General Automobile Equipment Ltd.
International Electric Co. Ltd.
MOOSE JAW—Great West Battery & Elec. Co. Ltd.
NEW LISKEARD—Bartlett's Auto Electric Service
NORTH BAY—North Bay Auto Electric
OSHAWA—W. R. Chapman
OTTAWA—Welch & Johnston Ltd.
OWEN SOUND — Slater's Auto Electric
PETERBOROUGH — Cliff Towle Auto Electric Service
QUEBEC—Marcel Rochette Ltee
REGINA — Auto Electric Service Ltd.
ST. CATHARINES—Sadler's Auto Electric Ltd.
SAINT JOHN—Battery & Electric Service Ltd.
ST. THOMAS—Nicol & Johnson Auto Electric
SARNIA—Chalmers Auto Electric
SASKATOON — Lone Star Auto Electric Service
SAULT STE. MARIE—
Collins Bros.
SHERBROOKE—Sherbrooke Auto Electric Inc.
SMITHS FALLS—Bourk's Ignition
STRATFORD — Universal Auto Electric
SUDBURY—Duncan Bros. Limited
SYDNEY—Cape Breton Batt. & Vulc. Co. Ltd.
TORONTO—
Auto Electric Service Company, Ltd.
Barnes Battery & Ignition Service Ltd.
A. Cross & Co. Ltd.
Pryal & Nye
Van Wagner's Auto Electric Ltd.
VANCOUVER—
Boultbee Limited
VICTORIA — Boultbee (Victoria) Ltd.
WINDSOR—Howitt Batt. & Elec. Serv. Co. Ltd.
WINNIPEG—
Beattie Auto Electric Limited
Sharpe's Limited
Wilson Auto Electric
WOODSTOCK — Woodstock Auto Electric



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CANADIAN AUTOMOTIVE ELECTRIC ASSOCIATION

EXECUTIVE OFFICE — 159 BAY ST., TORONTO, CANADA

★ *Turn to page 88 for more information*

What is

ENGINE TUNE-UP?

ENGINE TUNE-UP means performing the operations necessary to restore new car performance and economy. This is accomplished by returning all working parts to the original standards of adjustment according to the manufacturer's specifications. It may be necessary to install new parts in order to ensure that accurate adjustment will be maintained for a reasonable number of miles.

Tune-up Data: In order to return adjustments to standard, the tune-up technician must know what the standards are. For this reason, Motor Magazine's Canadian Service Data Book includes a Tune-up Section with the necessary data compiled for quick reference. Additional specifications may be located easily by referring to the sections of the book listed under "CONTENTS", or to the cross index.

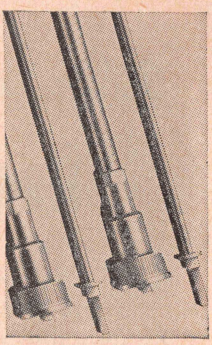
Why Tune-up is necessary: Normal wear, which is the natural result of continuous use, will gradually alter critical adjustments and cause a decline in car performance. When a customer complains of poor gasoline mileage, missing, hard starting, sluggish engine—sell him a complete tune-up.

Tune-up Procedure: First: Check the battery, cables and connections. If the battery is partially discharged, replace it before proceeding with further tests. Next, run the engine until it is at normal operating temperature, then check for mechanical troubles using a vacuum and compression gauge. Follow the tune-up cycle: 1.—Compression. 2.—Ignition. 3.—Carburetion. 4.—Safety Items. Satisfactory results cannot be obtained without completing the entire cycle as a definite, orderly service operation.

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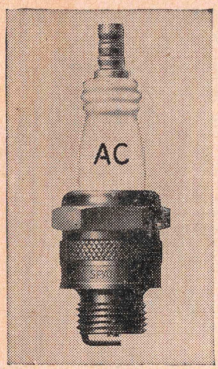
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RELIABILITY
FOR BETTER
Engine Performance

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WIDER "HEAT RANGE" SPARK PLUGS



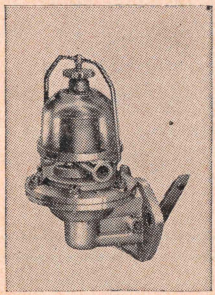
Last longer and stay clean longer through a wider range of engine operating conditions and temperatures. Be sure to check the plugs being used against the latest AC Specification Chart for *factory-recommended "Heat Range" type.* Install the recommended AC Spark Plug for improved performance.

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AC Oil Filters, and AC Elements of specially processed, long fibre cotton. Check the filter element when changing oil or tuning engine. Complete AC Oil Filters available for every engine and AC Elements for nearly all filters.

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AC Fuel Pumps have been factory equipment on nearly every car and truck for 19 years. For service and replacement, standardize on AC Parts and Diaphragm Kits, and AC New or Rebuilt Fuel Pumps. Millions of pumps are worn out, and need replacement. Use only AC products and assure your customers of quality that meets engine builders' specifications.

AC

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OSHAWA — ONTARIO T-247AC

ENGINE TUNE-UP

Make and Model	Year	Set Breaker Gap (Minimum-Maximum)	Breaker Spring Tension (Ounces) (Min.-Max.)	Timing—Deg. B. or A. TDC	Battery—Terminal Grounded	Valve Clearance—Intake (Minimum-Maximum)	Valve Clearance—Exhaust (Minimum-Maximum)	Compression Pressure at Cranking Speed (Lbs.)	Spark Plug—Thread Size (mm)	Spark Plug Make—Original Equipment	Spark Plug Model No.	Spark Plug Gap (Minimum-Maximum)	Float Level or Fuel Level
AUSTIN (English)													
A.40	'48	.012	—	5°B	P	.015	.015	—	14	Cha	NA8D	.017-.018	PP
BUICK													
Series 44	'39	.015	—	4B	N	.015H	.015H	112	14	AC	46	.025	3/16
Series 46	'39	.015	—	6B	N	.015H	.015H	114	14	AC	46	.025	5/8
Series 48	'39	.015	—	6B	N	.015H	.015H	114	14	AC	46	.025	5/8
Series 49	'39	.015	—	6B	N	.015H	.015H	114	14	AC	46	.025	5/8
44 00 & 45	'40	.015	—	4B	N	.015H	.015H	112	14	AC	46	.025	19/32
47 Roadmaster	'40	.015	—	6B	N	.015H	.015H	114	14	AC	46	.025	21/32
40 Special	'41	.015	—	4B	N	.015H	.015H	142	10	AC	104	.025	19/32
45 Super	'41	.015	—	4B	N	.015H	.015H	148	10	AC	104	.025	19/32
46 Century	'41	.015	—	6B	N	.015H	.015H	151	10	AC	104	.025	19/32
47 & 49	'41	.015	—	6B	N	.015H	.015H	151	10	AC	104	.025	19/32
Series 44	'42	.015	—	4B	N	.015H	.015H	142	14	AC	46	.025	19/32
Series 46	'42	.015	—	6B	N	.015H	.015H	151	14	AC	46	.025	19/32
Series 50	'46	.015	—	4B	N	.015H	.015H	112	14	AC	48	.025	—
Series 70	'46	.015	—	6B	N	.015H	.015H	114	14	AC	48	.025	—
Series 40	'47	.015-.017	19-23	4B	N	.015H	.015H	112	14	AC	48	.025	†
Series 50	'47	.015-.017	19-23	4B	N	.015H	.015H	112	14	AC	48	.025	†
Series 70	'47	.015-.017	19-23	6B	N	.015H	.015H	114	14	AC	48	.025	†
Series 40, 50, 70	'48	(Not distributed in Canada)											
CADILLAC													
V-8 61 & 60S	'39	.0125	—	5B	P	Automatic Take-up		155	10	AC	104	.025	5/8
V-8 75	'39	.0125	—	5B	P	Automatic Take-up		170	10	AC	104	.025	5/8
V-16 90	'39	.0125	—	6B	P	Automatic-Take-up		180	10	AC	104	.030	—
V-8 62 & 60S	'40	.0125	—	5B	P	Automatic Take-up		155	10	AC	104	.025	5/8
V-8 75	'40	.0125	—	5B	P	Automatic Take-up		170	10	AC	104	.025	5/8
All Series	'41	.0125	—	5B	P	Automatic Take-up		182	10	AC	104	.025	5/8
Al Series	'42	.0125	—	5B	P	Automatic Take-up		182	10	AC	104	.025	5/8
V-8	'46	.015	—	5B	P	Automatic Take-up		100	10	AC	104	.030	—
V-8	'47	.0125-.0175	19-23	5B	P	Automatic Take-up		100-105	10	AC	104	.025-.030	††
V-8	'48	(Not distributed in Canada)											
CHEVROLET													
Six	'39	.018	—	5B	N	.006H	.013H	112	14	AC	46	.040	1/2
Six	'40	.018	—	5B	N	.006H	.013H	112	14	AC	44	.040	1/2
Six	'41	.018	—	5B	N	.006H	.013H	112	14	AC	44	.040	1/2
Six	'42	.018	—	5B	N	.006H	.013H	112	14	AC	44	.040	1/2
Six	'46	.018	—	5B	N	.006H	.013H	—	10	AC	M8	.040	—
Six	'46	.018	—	5B	N	.006-.008H	.013-.015H	—	10	AC	M8	.040	—
Six	'47	.018	17-21	5B	N	.006-.008x	.013-.015x	110	10	AC	M8	.040	1/2
Six	'48	.018	17-21	5B	N	.006-.008x	.013-.015x	110	10	AC	M8	.040	1/2
CHRYSLER													
Six C22	'39	.020	—	TDC	P	.008H	.010H	150	14	Cha	J-8	.025	5/64
D18 C23	'39	.017	—	TDC	P	.008H	.010H	—	14	AL	A-7	.025	5/8
Imp. 8 C24	'39	.017	—	3B	P	.008H	.010H	—	14	AL	A-7	.025	5/8

(Continued on page 19)

For key to abbreviations see page 25

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CENTURIES ago, when a cavalier wanted the finest sword obtainable, he had it made of Toledo Steel — for such a blade often meant the difference between life and death. No finer steel was made than that produced in the ancient Spanish city of Toledo.

A modern counterpart, today, is the quality of Toledo automotive parts for engine and chassis. For almost half a century, "Men Who Know Motors" have insisted that there are none finer . . . the best of reasons why you should specify Toledo on every parts order.

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Makers of Fine Automotive and Aircraft Parts

★ *Turn to page 88 for more information*

ENGINE TUNE-UP

Make and Model	Year	Set Breaker Gap (Minimum-Maximum)	Breaker Spring Tension (Ounces) (Min.-Max.)	Timing—Deg. B. or A. TDC	Battery—Terminal Grounded	Valve Clearance—Intake (Minimum-Maximum)	Valve Clearance—Exhaust (Minimum-Maximum)	Compression Pressure at Cranking Speed (Lbs.)	Spark Plug—Thread Size (mm)	Spark Plug Make—Original Equipment	Spark Plug Model No.	Spark Plug Gap (Minimum-Maximum)	Float Level or Fuel Level
CHRYSLER—Continued													
Six C25	'40	.020	—	TDC	P	.008H	.010H	140	14	AL	A-7	.025	5/64
D18 C26	'40	.017	—	TDC	P	.008H	.010H	150	14	AL	A-7	.025	5/64
Imp. 8 C27	'40	.017	—	3B	P	.008H	.010H	150	14	AL	A-7	.025	5/64
Ry. 16 C28	'41	.020	—	TDC	P	.008H	.010H	115	14	AL	A-7	.025	5/64
Ny. 8 C30	'41	.017	—	TDC	P	.008H	.010H	120	14	AL	A-7	.025	5/64
Crn. 8 C33	'41	.017	—	z	P	.008H	.010H	120	14	AL	A-7	.025	5/64
Ry. 6 C34	'42	.020	—	2A	P	.008H	.010H	130	14	AL	I-7	.025	5/64
NY. 8 C36	'42	.018	—	5A	P	.008H	.010H	130	14	AL	I-7	.025	5/64
Crn. 8 C37	'42	.018	—	5A	P	.008H	.010H	130	14	AL	A-7	.025	5/64
Six C38W, C38S	'46	.020	—	2A	P	.008H	.010H	125-135	14	AL	A-5	.025	5/64
Eight C39, C40	'46	.018	—	2A	P	.008H	.010H	130	14	AL	A-5	.025	5/64
Six C38W, C38S	'47	.020	17-20	2A	P	.008H	.010H	125-135	14	AL	A-5	.025	5/64
Eight C39, C40	'47	.018	18-20	2A	P	.008H	.010H	130	14	AL	A-5	.025	5/64
Six C38W, C38S	'48	.020	17-20	2A	P	.008H	.010H	125-135	14	AL	A-5	.025	5/64
Eight C39, C40	'48	.018	18-20	2A	P	.008H	.010H	130	14	AL	A-5	.025	5/64
CROSLEY													
Four	'48	.020	17-20	12B	P	.004-.005C	.006-.007C	30∅	14	AL	A-7A	.025	‡
DE SOTO													
Six S-6	'39	.020	—	2A	P	.008H	.010H	140	14	AL	A-7	.025	5/64
Six S-7	'40	.020	—	2A	P	.008H	.010H	145	14	AL	A-7	.025	5/64
Six S-8	'41	.020	—	TDC	P	.008H	.010H	115	14	AL	A-7	.025	5/64
Six S-10	'42	.020	—	TDC	P	.008H	.010H	130	14	AL	A-7	.025	5/64
Six S-11	'46	.020	—	TDC	P	.008H	.010H	125-135	14	AL	A-5	.025	5/64
S-11	'47	.020-.024	17-20	TDC	P	.008H	.010H	125-135	14	AL	A-5	.025	5/64
S-11	'48	.020-.024	17-20	TDC	P	.008H	.010H	125-135	14	AL	A-5	.025	5/64
DODGE													
DeL. D-12	'39	.020	—	3B	P	.008H	.010H	140	14	Cha	J-8	.025	5/8
Std. D-13	'39	.020	—	3B	P	.008H	.010H	140	14	Cha	J-8	.025	5/8
Big 6 D-11	'39	.020	—	TDC	P	.008H	.010H	140	14	Cha	J-8	.025	5/8
Six D-15	'40	.020	—	TDC	P	.008H	.010H	140	14	AL	A-7	.025	5/8
DeL. D-16	'40	.020	—	TDC	P	.008H	.010H	140	14	AL	A-7	.025	5/8
Big 6 D-14	'40	.020	—	TDC	P	.008H	.010H	140	14	AL	A-7	.025	5/8
K'y 6 D-20	'41	.020	—	TDC	P	.008H	.010H	100	14	AL	A-7	.025	5/8
DeL. D-21	'41	.020	—	TDC	P	.008H	.010H	100	14	AL	A-7	.025	5/8
Lux. D-19	'41	.020	—	TDC	P	.008H	.010H	100	14	AL	A-7	.025	5/8
DeL. D-23	'42	.020	—	TDC	P	.008H	.010H	130	14	AL	A-7	.025	5/8
Cus. D-22	'42	.020	—	TDC	P	.008H	.010H	130	14	AL	A-7	.025	5/8
D-24	'46	.020	—	TDC	P	.008H	.010H	125-135	14	AL	A-5	.025	5/8
D-25	'46	.020	—	TDC	P	.008H	.010H	125-135	14	AL	A-5	.025	5/8
D-25	'47	.020-.024	17-20	TDC	P	.008H	.010H	125-135	14	AL	A-5	.025	5/8
D-24	'47	.020-.024	17-20	TDC	P	.008H	.010H	125-135	14	AL	A-5	.025	5/8
D-25	'48	.020-.024	17-20	TDC	P	.008H	.010H	125-135	14	AL	A-5	.025	5/8
D-24	'48	.020-.024	17-20	TDC	P	.008H	.010H	125-135	14	AL	A-5	.025	5/8
FORD													
V-8, 85	'39	.015	—	4B	P	.012	.012	105	14	Cha	H-10	.025	11/16
V-8, 85	'40	.015	—	4B	P	.012	.012	100	14	Cha	H-10	.025	11/16

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FORD—Continued													
V-8, 85	'41	.015	—	4B	P	.012	.012	100	14	Cha	H-10	.025	15/32
V-8, 85	'42	.015	—	4B	P	.012	.012	100	14	Cha	H-10	.025	15/32
De Luxe	'46	.014	—	4B	P	.011C	.011C	100	14	Cha	H-10	.025	11/16
Super De Luxe	'46	.014	—	4B	P	.011C	.011C	100	14	Cha	H-10	.025	11/16
DeL. & Super DeL.	'47	.014-.016	20-24	4B	P	.010-.012C	.014-.016C	110	14	Cha	H-10	.025	11/16
DeL. & Super DeL.	'48	.014-.016	20-24	4B	P	.010-.012C	.014-.016C	110	14	Cha	H-10	.025	11/16
FRAZER													
F-47	'47	.020-.024	17-20	TDC	P	.014	.014	120	14	AL or Cha	J-9-64	.032	5/16(f)
F-47-47C-485-486	'48	.020	17-20	TDC(x)	P	.010C#	.014C	120-130E	14	AL	A-5	.032	FL
GRAHAM													
Six-96	'39	.018	—	TDC	P	.010H	.010H	130	14	Cha	H-10	.025	—
Six-97	'39	.018	—	4½A	P	.010H	.010H	130	14	Cha	H-10	.025	—
Six-107	'40	.018	—	4½A	P	.010H	.010H	130	14	Cha	H-10	.025	—
Six-108	'40	.018	—	TDC	P	.010H	.010H	130	14	Cha	H-10	.025	—
HUDSON													
Six-93	'39	.020	—	TDC	P	.006H	.008H	120	14	Cha	J-8	.032	3/32
Six-91	'39	.020	—	TDC	P	.006H	.008H	120	14	Cha	J-8	.032	3/8
Six-92	'39	.020	—	TDC	P	.006H	.008H	120	14	Cha	J-8	.032	3/32
Eight-95	'39	.017	—	TDC	P	.006H	.008H	118	14	Cha	J-8	.032	5/32
Eight-97	'39	.017	—	TDC	P	.006H	.008H	118	14	Cha	J-8	.032	5/32
Six-90	'39	.020	—	2½B	P	.006H	.008H	115	14	Cha	J-8	.032	3/8
Six-98	'39	.020	—	TDC	P	.006H	.008H	115	14	Cha	J-8	.032	3/8
Six-41	'40	.020	—	TDC	P	.006H	.008H	120	14	Cha	J-8	.032	3/32
Six-43	'40	.020	—	TDC	P	.006H	.008H	120	14	Cha	J-8	.032	3/32
Six-48	'40	.020	—	TDC	P	.006H	.008H	120	14	Cha	J-8	.032	3/4
Eight-44	'40	.017	—	TDC	P	.006H	.008H	119	14	Cha	J-8	.032	5/32
Eight-47	'40	.017	—	TDC	P	.006H	.008H	119	14	Cha	J-8	.032	5/32
Six-40	'40	.020	—	TDC	P	.006H	.008H	125	14	Cha	J-8	.032	3/8
Six-10	'41	.020	—	½B	P	.010H	.012H	125	14	Cha	J-9	.032	3/8
Six-11, 12	'41	.020	—	½B	P	.006H	.008H	120	14	Cha	J-9	.032	1/8
Six-18	'41	.020	—	½B	P	.006H	.008H	120	14	Cha	J-9	.032	3/8
Eight	'41	.017	—	TDC	P	.006H	.008H	119	14	Cha	J-9	.032	1/8
6-20C, 20 SP, 28	'42	.020	—	½B	P	.010H	.012H	125	14	Cha	J-9	.032	3/8
6-21, 22	'42	.020	—	½B	P	.006H	.008H	120	14	Cha	J-9	.032	1/8
Eights	'42	.017	—	TDC	P	.006H	.008H	119	14	Cha	J-9	.032	1/8
Six 51, 52	'46	.020	—	½B	P	.010H	.012H	120	14	Cha	J-9	.032	1/8
Eight 53, 54	'46	.017	—	TDC	P	.010H	.010H	119	14	Cha	J-9	.032	1/8
Six 171, 172	'47	.020	18m	½B	P	.010H	.012H	120	14	Cha	J-9	.032	1/8
Eight 173, 174	'47	.017	18m	TDC	P	.006H	.008H	119	14	Cha	J-9	.032	1/8
Series 481	'48	.020	17-20	TDC	P	.010	.012	110	14	Cha	J-7(h)	.032-.045	3/16
Series 482	'48	.020	17-20	TDC	P	.010	.012	110	14	Cha	J-7(h)	.032-.045	3/16
Series 483	'48	.017	17-20	TDC	P	.005	.008	119F	14	Cha	J-7)h)	.032-.045	13/64
Series 484	'48	.017	17-20	TDC	P	.006	.008	119F	14	Cha	J-7(h)	.032-.045	13/64

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HUPMOBILE													
6-922E	'39	.020	—	7B	P	.010	.013	107	18	Cha	7	.029	3/8
8-925H	'39	.017	—	7B	P	.007	.014	113	18	Cha	7	.029	5/16
KAISER													
K-100	'47	.020-.024	17-20	TDC	P	.014	.014	120	14	AL or Cha	J-9-64	.032	5/16(f)
K-100-101-481-482	'48	.020	17-20	TDC(x)	P	.010C#	.014C	120-130E	14	AL	A-5	.032	FL
LA SALLE													
39-50	'39	.0125	—	5B	P	Automatic Take-up		155	10	AC	104	.025	1/8
40-50 & 52	'40	.0125	—	5B	P	Automatic Take-up		155	10	AC	104	.025	1/8
LINCOLN													
Lincoln Continental	'41	.014	—	4B	P	Automatic Take-up		110	14	Cha	H-10	.028	—
Linc. & Cont.	'47	.014-.016	20-24	4B	P	Automatic Take-up		125	14	Cha	H-10	.028	19/32
Linc. & Cont.	'48	.014-.016	20-24	4B	P	Automatic Take-up		125	14	Cha	H-10	.028	19/32
MERCURY													
Mercury	'39	.015	—	4B	P	.012	.012	120	14	Cha	H-10	.025	11/16
Mercury	'40	.015	—	4B	P	.012	.012	100	14	Cha	H-10	.025	11/16
Mercury	'41	.015	—	4B	P	.012	.012	100	14	Cha	H-10	.025	15/32
Mercury	'42	.015	—	4B	P	.012	.012	100	14	Cha	H-10	.025	15/32
114 & 114X	'46	.014	—	4B	P	.011C	.015C	110	14	Cha	H-10	.025	11/16
118	'46	.014	—	4B	P	.011C	.015C	115	14	Cha	H-10	.025	11/16
114, 114X & 118	'47	.014-.016	20-24	4B	P	.010-.012C	.014-.016C	115	14	Cha	H-10	025	11/16
114, 114X & 118	'48	.014-.016	20-24	4B	P	.010-.012C	.014-.016C	115	14	Cha	H-10	.025	11/16
MONARCH													
Monarch	'46	.014	—	4B	P	.011C	.015C	110	14	Cha	H-10	.025	11/16
Monarch	'47	.014-.016	20-24	4B	P	.010-.012C	.014-.016C	110	14	Cha	H-10	.025	11/16
Monarch	'48	.014-.016	20-24	4B	P	.010-.012C	.014-.016C	110	14	Cha	H-10	.025	11/16
NASH													
Lafayette	'39	.020	—	TDC	P	.015H	.015H	110	18	c	c	.025	15/32
Amb. 6	'39	.020	—	4B	P	.015H	.015H	110	14	AC	45	.025	3/8
Amb. 8	'39	.017	—	9B	P	.015H	.015H	110	14	AC	45	.025	1/4
Lafayette	'40	.020	—	TDC	P	.015H	.015H	110	18	AL	B-7	.025	5/16
Amb. 6	'40	.020	—	6B	P	.015H	.015H	125	14	AC	45	.025	3/8
Amb. 8	'40	.017	—	9B	P	.015H	.015H	110	14	AC	45	.025	5/16
Amb. 600	'41	.020	—	TDC	P	.015H	.015H	120	14	AL	AN-7	.025	5/64
Amb. 6	'41	.020	—	6B	P	.015H	.015H	125	14	AC	45	.025	3/8
Amb. 8	'41	.017	—	9B	P	.015H	.015H	110	14	AC	45	.025	5/16
4240-6	'42	.020	—	TDC	P	.015H	.015H	120	14	AL	AN-7	.025	5/64
4260-6	'42	.030	—	4B	P	.015H	.015H	125	14	AC	45	.025	3/8
4280-8	'42	.017	—	7B	P	.015H	.015H	110	14	AC	45	.025	5/16
Six-4640	'46	.020	—	TDC	P	.015H	.015H	120	14	AL	A-5	.025	1/2

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NASH—Continued													
Six 4660	'46	.020	—	4B	P	.015H	.015H	125	14	AL	A-5	.025	3/8
Series 4740	'47	.020	18	TDC	P	.015	.015	120	14	AL	A-5	.025	1/2
Series 4760	'47	.020	18	TDC	P	.015	.015	125	14	AL	A-5	.025	3/8
Series 4840	'48	.020	17-20	fd	P	.015	.015	120	14	AL	AN7	.025	
Series 4860	'48	.020	17-21	fd	P	.015H	.018H	125	14	AC	45	.025	
OLDSMOBILE													
Six	'39	.018	—	TDC	N	.008H	.011H	79	14	AC	45	.040	3/8
35-, & 36-00	'40	.020	—	TDC	N	.008H	.011H	—	14	AC	45	.040	3/8
Six	'41	.020	—	TDC	N	.008H	.011H	115	14	AC	44	.040	1/2
Eight	'41	.0125	—	2B	N	.008H	.011H	105	14	AC	44	.030	5/16
Six	'42	.020	—	TDC	N	.008H	.011H	102	14	AC	44	.040	9/16
Six (HM)	'42	.020	—	TDC	N	.008H	.011H	102	14	AC	44	.040	1/2
Eights, all	'42	.0125	—	2B	N	.008H	.011H	105	14	AC	44	.030	5/16
Six	'46	.020	—	TDC	N	.008H	.011H	115	14	AC	48	.040	9/16
Eight	'46	.015	—	2B	N	.088H	.011H	107	14	AC	48	.030	5/16
Six	'47	.020	17-21	TDC	N	.008	.011	102(p)	14	AC	48	.040	1/2
Etght	'47	.015	19-23	2B	N	.008	.011	105(p)	14	AC	48	.030	5/16
Six	'48	.020	17-21	TDC	N	.008	.011	102(p)	14	AC	48	.040	1/2
Eight	'48	.015	19-23	2B	N	.008	.011	105(p)	14	AC	48	.030	5/16
PACKARD													
Six	'39	.018	—	6B	P	.007H	.010H	110	10	f	g	.025	—
Eigh'	'39	.017	—	8B	P	.007H	.010H	110	10	f	g	.025	15/32
Super Eight	'39	.017	—	7B	P	.006H	.008H	110	10	f	g	.025	5/8
Twelve	'39	.020	—	6B	Automatic Take-up			110	10	f	g	.025	9/16
Six	'40	.020	—	6B	P	.007H	.010H	110	10	f	h	.025	5/8
Eight	'40	.017	—	8B	P	.007H	.010H	110	10	f	h	.025	15/32
Super Eight	'40	.017	—	5B	Automatic Take-up			110	10	f	h	.025	5/8
Six 110	'41	.020	—	6B	P	.007H	.010H	—	10	f	h	.025	5/8
Eight 120	'41	.017	—	7B	P	.007H	.010H	—	10	f	h	.025	5/32
Super Eight	'41	.017	—	5B	Automatic Take-up			—	10	f	h	.025	5/8
"6"—2000	'42	.018	—	4B	P	.007H	.010H	—	10	f	h	.025	—
"8"—2001	'42	.017	—	5B	P	.007H	.010H	—	10	f	h	.025	5/32
Super Eight	'42	.017	—	4B	Automatic Take-up			—	10	f	h	.025	5/8
2100	'46	.020	—	4B	P	.007H	.010H	—	10	d	—	.025-.030	5/8
2101 & 2111	'46	.015	—	5B	P	.007H	.010H	—	10	d	—	.025-.030	5/32
2103 & 2126	'46	.015	—	4B	Automatic Take-up			—	10	d	—	.025-.030	5/32
2100 & 2130	'47	.020	@17-20	6B	P	.007H	.010H	—	10	d	d	.028	5/8
2101 & 2111	'47	.017	17-20	7B	P	.007H	.010H	110	10	e	e	.028	5/32
2103, 2106 &2126	'47	.017	17-20	6B	Automatic Take-up			108	10	e	e	.028	5/32
2201 & 2211	'48	.0125 .0175	19-23	6B	P	.007	.010	—	10	Cha AL AC	d	.025-.030	5/32Ø
2202 & 2232	'48	.0125 .0175	19-23	6B	P	.007	.010	—	10	Cha AL AC	d	.025-.030	5/32Ø
2206 & 2233	'48	.0125 .0175	19-23	6B	P	Automatic Take-up		—	10	Cha AL AC	d	.025-.030	5/32Ø

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PLYMOUTH													
Six, P-7	'39	.020	—	2B	P	.008H	.010H	140	14	Cha	J-8	.025	5/64
De DeLuxe P-8	'39	.020	—	2B	P	.008H	.010H	140	14	Cha	J-8	.025	5/64
Six P-9	'40	.020	—	TDC	P	.008H	.010H	140	14	AL	A-7	.025	5/64
DeLuxe P-10	'40	.020	—	TDC	P	.008H	.010H	140	14	AL	A-7	.025	5/64
Rd K'g P-11	'41	.020	—	TDC	P	.008H	.010H	100	14	AL	A-7	.025	5/64
DeLuxe P-12	'41	.020	—	TDC	P	.008H	.010H	100	14	AL	A-7	.025	5/64
DeLuxe P-14	'42	.020	—	TDC	P	.008H	.010H	130	14	AL	A-7	.025	5/64
Six P-15	'46	.020	—	TDC	P	.008H	.010H	125-135	14	AL	A-5	.025	5/64
P-15	'47	.020-.024	17-20	TDC	P	.008H	.010H	125-135	14	AL	A-5	.025	5/64
P-15	'48	.020-.024	17-20	TDC	P	.008H	.010H	125-135	14	AL	A-5	.025	5/64
PONTIAC													
Chieftain	'39	.018	—	6B	N	.006H	.013H	112	14	AC	45	.025	1/2
Arrow	'39	.018	—	5B	N	.006H	.013H	112	14	AC	46	.040	1/2
Spec. 25-00	'40	.020	—	6B	N	.012H	.012H	—	14	AC	45	.025	7/16
Arrow	'40	.018	—	5B	N	.006H	.013H	112	14	AC	44	.040	1/2
Fleet & Torpedo 6's	'41	.020	—	4B	N	.012H	.012H	155§	14	AC	45	.025	7/16
Sixes	'42	.020	—	4B	N	.012H	.012H	155§	14	AC	45	.025	7/16
Later Sixes	'42	.020	—	4B	N	.012H	.012H	155§	14	AC	45	.025	11/16‡
Six—All Series	'46	.020	—	4B	N	.012H	.012H	160§	14	AC	45	.025	7/16
Eight—All series	'46	.015	—	4B	N	.012H	.012H	158§	14	AC	45	.025	—
Six	'47	.020	17-21	4B	N	.011-.013H	.011-.013H	105-110	14	AC	45	.025	7/16
Eight	'47	.015	19-23	4B	N	.011-.013H	.011-.013H	105-110	14	AC	45	.025	5/16
Six	'48	.020	17-21	4B	N	.011-.013H	.011-.013H	105-110	14	AC	45	.025	7/16
Eight	'48	.015	19-23	4B	N	.011-.013H	.011-.013H	105-110	14	AC	45	.025	3/16

N.B. Fleetleaders (1941-2-6-7-8) are 20 and 22 Series; Torpedo 6 & 8 (1941-2-6-7-8) are 25 and 27 Series respectively. Streamliner 6 & 8 (1941-2-6-7-8) are 26 and 28 Series respectively; Streamliner 6 & 8 (1948) not distributed in Canada.

STUDEBAKER													
Champion G	'39	.020	—	1B	P	.016C	.016C	105	18	Cha	8	.025	5/16**
Comm. 6 (9A)	'39	.020	—	2B	P	.016C	.016C	105	18	Cha	8	.025	5/8
Pres. 8 (5C)	'39	.018	—	TDC	P	.016C	.016C	105	18	Cha	8	.025	5/8
Champion G-2	'40	.020	—	2B	P	.016C	.016C	105	18	Cha	8	.025	1/4
Comm. 6 (10A)	'40	.020	—	2B	P	.016C	.016C	105	18	Cha	8	.025	5/8
Pres. 8 (6C)	'40	.015	—	TDC	P	.016C	.016C	105	18	Cha	8	.025	5/8
Champion 3G	'41	.020	—	2B	P	.016C	.016C	105	14	Cha	J-8	.025	5/16
Comm. 6 (11A)	'41	.020	—	2B	P	.016C	.016C	105	18	Cha	8	.025	5/8
Pres. 8 (7C)	'41	.020	—	TDC	P	.016C	.016C	105	18	Cha	8	.025	5/8
Champion 4G	'42	.020	—	2B	P	.016C	.016C	105	14	Cha	J-9	.025	5/16
Comm. 6 (12A)	'42	.020	—	2B	P	.016C	.016C	105	14	Cha	J-9	.025	5/8
Pres. 8 (8C)	'42	.020	—	TDC	P	.016C	.016C	105	14	Cha	J-9	.025	5/8
Six 5G	'46	.020	—	2B	P	.016C	.016C	150	14	Cha	J-9	.025	1/4
Champ.—6G	'47	.020	17-20	2B	P	.016C	.016C	105	14	Cha	J-9	.025	1/4❖
Comm.—14A	'47	.020	17-20	2B	P	.016C	.016C	105	14	Cha	J-9	.025	1/4❖
Champ.—6G	'48	.020	17-20	2B	P	.0015	.0035	105(x)	14	Cha	J-7 or 9	†	3/8
Comm.—15A	'48	.020	17-20	3/64B	P	.0015	.0305	105(x)	14	Cha	J-7 or 9	†	5/8

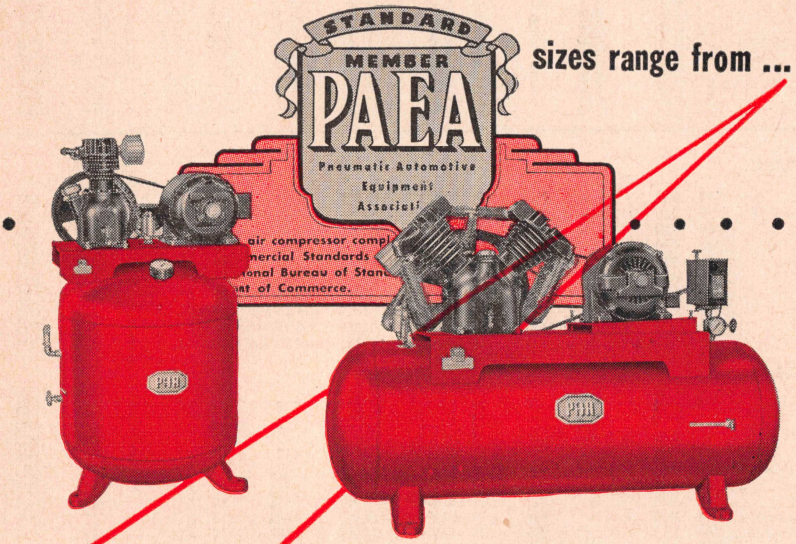
(Continued on page 25)

For key to abbreviations see page 25

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ENGINE TUNE-UP

Make and Model	Year	Set Breaker Gap (Minimum-Maximum)	Breaker Spring Tension (Ounces) (Min.-Max.)	Timing—Deg. B. or A. TDC	Battery—Terminal Grounded	Valve Clearance—Intake (Minimum-Maximum)	Valve Clearance—Exhaust (Minimum-Maximum)	Compression Pressure at Cranking Speed (lbs.)	Spark Plug—Thread Size (mm)	Spark Plug Make—Original Equipment	Spark Plug Model No.	Spark Plug Gap (Minimum-Maximum)	Float Level or Fuel Level
WILLYS													
Four-48	'39	.020	—	5A	N	.004H	.006H	87	14	Cha	J-8	.025	—
Overland	'39	.020	—	TDC	N	.014C	.016C	105	14	Cha	J-8	.025	—
Willys 440	'40	.020	—	TDC	N	.014C	.014C	111	14	Cha	J-8	.025	3/8
Americar	'41	.020	—	TDC	N	.014C	.014C	111	14	b	b	.025	3/8
Americar	'42	.020	—	TDC	N	.014C	.014C	111	14	Cha	J-9	.025	3/8
CJ-2A Univ. Jeep	'45	.020	—	TDC(z)	N	.014	.014	111	14	AL	AN-7	.030	3/8
CJ-2A Univ. Jeep	'47	.020	17-20	TDC	N	.014C	.014C	111	14	AL	AN-7	.030	3/8
CJ-2A-2WD-4WD	'48	.020(b)	17-20	5B	N	.014	.014	115	14	AL, Cha	AN7, J9	.030	3/8
4-63	'48	.020(b)	17-20	5B	N	.014	.014	115	14	AL, Cha	AN7, J9	.030	5/16
6-63	'48	.020(b)	17-20	TDC	N	.014	.014	117	14	AL, Cha	AN7, J9	.020	5/16

ABBREVIATIONS

A=After top dead centre.
AL=Auto-Lite.
B=Before top centre.
b=Auto-Lite or Champion J-8.
C=Cold
c=Auto-Lite B-7, or AC 86.
Cha=Champion
d=AC 104, or Champion Y4A.
e=AC 104, or Champion Y4A, or Auto-Lite P4.
E=Throttle open.
f=AC or Champion.
F=Ar 125 r.p.m.
fd=Timing mark on rim front dampener.
FL=Carter 574S—1/2 inch; 610S—5/16 inch; 622S—3/8 inch; 622SA—3/8 inch; 685SA—9/64 inch; measured from top of boss to top of float seam. Float assy. cover inverted.
(f)=5/16" from top of boss to top of seam.
g=Champion Y4, or AC 103-S.
H=Hot.
h=AC 104, or Champion Y-4.
(L)=Aluminum head H-10.
m=Minimum.
mm=Millimeter
N=Negative.
P=Positive.
p=Cast iron heads TDC; aluminum heads 3'A.
(p)=Plus or minus 10.
TDC=Top dead centre.
x=With engine at operating temperature.
z=.004"B (piston travel).
(z)=72 octane fuel, 5° BTDC
††=Float level (Stromberg) 5/8; (Carter) 9/64.
‡=W-1 carburetors 521S, or 545S.
**=W-1 453S carburetor, float level changed to 1/4".
§=At 1000 rpm.
❖=Measured from boss on float cover to far edge of float seam.
@=Delco-Remy 19-23.
(b)=Plus or minus .002
(X)=Ar 150 r.p.m.
†=.0225-.0275
∅=Below top of bowl.
PP=Pre-set.
‡=1 27/64 from gasket surface (float) 23/32 (fuel).
∅=30 pounds maximum closed, 51 pounds maximum opened.
(x)=Engine idling.
#=.010C up to engine No. 10769, .014C after.
❖❖=1/2 inch from lip of seam free edge of float to machined lip of cover.
❖❖❖=3/8 inch from seam of float to raised spot on cover.

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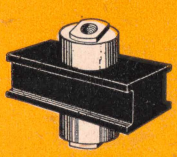


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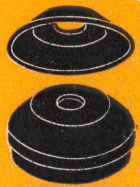
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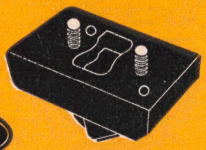
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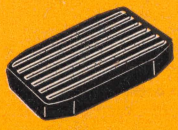
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FORD & MERCURY MOTOR MOUNT



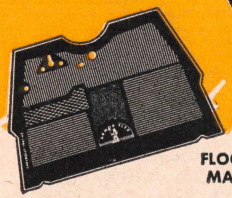
OLDSMOBILE MOTOR MOUNT



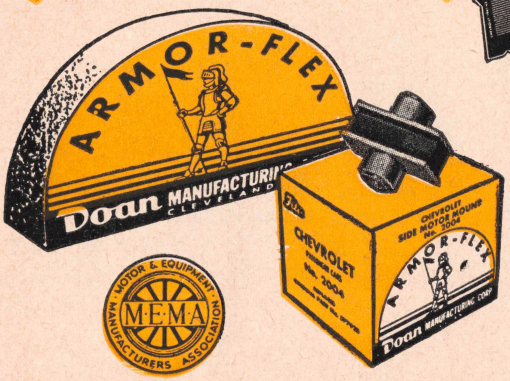
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★ *Turn to page 88 for more information*

PISTON PINS AND CONNECTING RODS

Make and Model	Year	Piston Pins—Diameter	Piston Pins—Locking Method	Piston Pins—Clearance (Minimum-Maximum)	Conn. Rod Bearings—Diameter and Length	Conn. Rod Bearings—Clearance (Min.-Max.)	Conn. Rod Bearings—End Play (Min.-Max.)	Direct Babbitt or Precision Insert	Pistons and Rods removed from above or below
AUSTIN (English)		PISTON PINS			CONNECTING RODS				
A.40	'48	.6244	R	—	—	—	—	PI	A
BUICK									
44 Special	'39	.8124	R	.0003	2x1.212	.0008	.005	Spun	A
46 Century	'39	.8744	R	.0003	2 1/4x1.306	.0008	.005	Spun	A
48 Roadmaster	'39	.8744	R	.0003	2 1/4x1.306	.0008	.005	Spun	A
49 Limited	'39	.8744	R	.0003	2 1/4x1.306	.0008	.005	Spun	A
44-00 & 45-00	'40	.8124	R	.0003	2x1.212	.0008	.005	Spun	A
47 Roadmaster	'40	.8744	R	.0003	2 1/4x1.306	.0008	.005	Spun	A
Spec. 44; Super 45	'41	.8124	R	.0003	2x1.212	.0008	.005	Spun	A
Series 46, 47, 49	'41	.8744	R	.0003	2 1/4x1.306	.0008	.005	Spun	A
Series 44	'42	.8124	R	.0003	2x1.212	.0008	.005	Spun	A
Series 46	'42	.8744	R	.0003	2 1/4x1.306	.0008	.005	Spun	A
Series 50	'46	.8125	R	.00035	2x1 7/32	.0013	.0075	Spun	A
Series 70	'46	.8750	R	.00035	2 1/4x1 5/16	.0013	.0075	Spun	A
Series 40	'47	.8125	R	.0003-.0004	2x1.212	.0008-.0018	.005-.010	DB	A
Series 50	'47	.8125	R	.0003-.0004	2x1.212	.0008-.0018	.005-.010	DB	A
Series 70	'47	.8750	R	.0003-.0004	2 1/4x1.306	.0008-.0018	.005-.010	DB	A
Series 40, 50, 70	'48	(Not distributed in Canada)							
CADILLAC									
V-8-61	'39	7/8	F	PF	2 29/64x2 1/32	.0015	.003	Sep	A
V-8 60S, V-8-75	'39	7/8	F	PF	2 29/64x2 1/32	.0015	.003	Sep	A
V-16 90	'39	7/8	P	PF	2x1 3/4	.0015	.004	Sep	A
V-8 62	'40	7/8	F	PF	2.460x2 1/32	.0015	.003	Sep	A
V-8 60S, V-8 75	'40	7/8	F	PF	2.460x2 1/32	.0015	.003	Sep	A
All series	'41	7/8	F	yy	2.460x2 1/32	.0015	.003	Sep	A
All series	'42	7/8	F	yy	2.460x2 1/32	.0015	.003	Sep	A
V-8	'46	7/8	F	yy	2.459x2.294	.0015	.0045	Sep	A
V-8	'47	7/8	F	yy	2.459x2.294	.0005-.0020	.008-.014	PI	A
V-8	'48	(Not distributed in Canada)							
CHEVROLET									
Six	'39	.865	R	SF	2 5/16x1 1/2	.0010	.0065	Spun	A
Six	'40	.865	R	SF	2 5/16x1 1/2	.0010	.0065	Spun	A
Six	'41	.865	R	SF	2 5/16x1 1/2	.0010	.0065	Spun	A
Six	'42	.865	R	SF	2 5/16x1 1/2	.0010	.0065	Spun	A
Six	'46	.865	R	SF	2 5/16x1 1/2	.0010	.0080	Spun	A
Six	'47	.8645	R	SF	2 5/16x1 1/2	.0010	.004-.011	DB	A
Six	'48	.8645	R	SF	2.314-1.432	SF	.004-.012	DB	A
CHRYSLER									
Royal 6 C-22	'39	55/64	F	FP	2 3/16x1 7/32	.0005	.0055	Sep	A
De Luxe 8 C-23	'39	55/64	F	FP	2 3/16x1 3/8	.0010	.006	Sep	A
Cus. Imp. 8 C-24	'39	55/64	F	FP	2 5/16x1 3/8	.0010	.006	Sep	A
Royal 6 C-25	'40	55/64	F	FP	2 3/16x1 7/32	.0015	.0055	Sep	A
De Luxe 8 C-26	'40	55/64	F	FP	2 5/16x1 3/8	.0020	.006	Sep	A
Cus. Imp. 8 C-27	'40	55/64	F	FP	2 5/16x1 3/8	.0020	.006	Sep	A

(Continued on page 28)

For key to abbreviations see page 32

SEE MOTOR MAGAZINE FOR LATEST TECHNICAL INFORMATION
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PISTON PINS AND CONNECTING RODS

Make and Model	Year	Piston Pins—Diameter	Piston Pins—Locking Method	Piston Pins—Clearance (Minimum-Maximum)	Conn. Rod Bearings—Diameter and Length	Conn. Rod Bearings—Clearance (Min.-Max.)	Conn. Rod Bearings—End Play (Min.-Max.)	Direct Babbitt or Precision Insert	Pistons and Rods removed from above or below
CHRYSLER—Continued									
Royal 6 C-28	'41	55/64	F	FP	2 1/8x1 7/32	.0005	.0055	Sep	A
New Yorker C-30	'41	55/64	F	FP	2 5/16x1 1/8	.0010	.006	Sep	A
Crown Imp. 8 C-33	41	55/64	F	FP	2 5/16x1 1/8	.0010	.006	Sep	A
Royal 6 C-34	'42	55/64	F	FP	2 1/8x1 7/32	.0005	.0055	Sep	A
New Yorker C-36	'42	55/64	F	FP	2 5/16x1 1/8	.0010	.006	Sep	A
Crown Imp. 8 C-37	'42	55/64	F	FP	2 5/16x1 1/8	.0010	.006	Sep	A
C-38W, C-38S	'46	55/64	F	FP	2 1/8x1 7/32	.001-.0015	.0055-.0115	Sep	A
Six C-38W, C-38S	'47	55/64	F	TP	2 1/8x1 7/32	.0005-.0025	.0055-.0115	PI	A
Eight C-39, C-40	'47	55/64	F	TP	2 5/16x1 1/8	.0005-.0015	.006-.011	PI	A
Six C-38W, C38S	'48	55/64	F	TP	2 1/8x1 7/32	.0005-.0025	.0055-.0115	PI	A
Eight C-39, C-40	'48	55/64	F	TP	2 5/16x1 1/8	.0005-.0015	.006-.011	PI	A
CROSLEY									
Four	'48	.6250-.6252	F	.0003-.0004x	1.375x.870	.0015-.003	.010-.025	PI	B
DE SOTO									
Six S-6	'39	55/64	F	FP	2 1/8x1 7/32	.0005	.0055	Sep	A
Six S-7	'40	55/64	F	FP	2 1/8x1 7/32	.0015	.0055	Sep	A
Six S-8	'41	55/64	F	FP	2 1/8x1 7/32	.0005	.0055	Sep	A
Six S-10	'42	55/64	F	FP	2 1/8x1 7/32	.0005	.0055	Sep	A
S-11	'46	55/64	F	FP	2 1/8x1 7/32	.001-.0015	.006-.011	Sep	A
S-11	'47	55/64	F	TP	2 1/8x1 7/32	.0005-.0025	.0055-.0115	PI	A
S-11	'48	55/64	F	TP	2 1/8x1 7/32	.0005-.0025	.0055-.0115	PI	A
DODGE									
De Luxe 6 D-12	'39	55/64	F	FP	2 1/8x1 7/32	.0015	.0055	Sep	A
Stand. 6 D-13	'39	55/64	F	FP	2 1/8x1 7/32	.0015	.0055	Sep	A
Big Six D-11	'39	55/64	F	FP	2 1/8x1 7/32	.0015	.0055	Sep	A
Stand. 6 D-15	'40	55/64	F	FP	2 1/8x1 7/32	.0015	.0055	Sep	A
De Luxe 6 D-16	'40	55/64	F	FP	2 1/8x1 7/32	.0015	.0055	Sep	A
Big Six D-14	'40	55/64	F	FP	2 1/8x1 7/32	.0015	.0055	Sep	A
Kingsway 6 D-20	'41	55/64	F	FP	2 1/8x1 7/32	.0015	.0055	Sep	A
De Luxe 6 D-21	'41	55/64	F	FP	2 1/8x1 7/32	.0005	.0055	Sep	A
Luxury Liner 6 D-19	'41	55/64	F	FP	2 1/8x1 7/32	.0005	.0055	Sep	A
De Luxe D-2B	'42	55/64	F	FP	2 1/8x1 7/32	.0005	.0055	Sep	A
Custom D-22	'42	55/64	F	FP	2 1/8x1 7/32	.0005	.0055	Sep	A
D-25	'46	55/64	F	FP	2 1/8x1 7/32	.001-.0015	.0055-.0115	Sep	A
D-24	'46	55/64	F	FP	2 1/8x1 7/32	.001-.0015	.0055-.0115	Sep	A
D-25	'47	55/64	F	TP	2 1/8x1 7/32	.0005-.0025	.0055-.0115	PI	A
D-24	'47	55/64	F	TP	2 1/8x1 7/32	.0005-.0025	.0055-.0115	PI	A
D-25	'48	55/64	F	TP	2 1/8x1 7/32	.0005-.0025	.0055-.0115	PI	A
D-24	'48	55/64	F	TP	2 1/8x1 7/32	.0005-.0025	.0055-.0115	PI	A
FORD									
V-8, 85	'39	3/4	F	.0002	2.22x.871	.0015	.006	F	A
V-8, 85	'40	3/4	F	.0002	2.22x.871	.0015	.006	F	A
V-8, 85	'41	3/4	F	.0002	a	.0015	.005	F	A
V-8, 85	'42	3/4	F	.0002	a	.0015	.005	F	A

For key to abbreviations see page 32

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PISTON PINS AND CONNECTING RODS

Make and Model	Year	Piston Pins—Diameter	Piston Pins—Locking Method	Piston Pins—Clearance (Minimum-Maximum)	Conn. Rod Bearings—Diameter and Length	Conn. Rod Bearings—Clearance (Min.-Max.)	Conn. Rod Bearings—End Play (Min.-Max.)	Direct Babbitt or Precision Insert	Pistons and Rods removed from above or below
FORD—Continued		PISTON PINS			CONNECTING RODS				
Ford De Luxe	'46	.7505	F	.0000-.0003S	2.00x.84	.0003-.0028	.006-.014	R	A
Super De Luxe	'46	.7505	F	.0000-.0003S	2.00x.84	.0003-.0028	.006-.014	R	A
DeL. & Super DeL.	'47	.7505	F	.0000-.0003S	2.14x.84	.0003-.0028	.006-.014	PI	A
DeL. & Super DeL.	'48	.7505	F	.0000-.0003S	2.14x.84	.0003-.0028	.006-.014	PI	A
FRAZER									
F-47	'47	.913-.914	Lr	.1858-.2045	D:L	.0005-.0023	.002-.004	DB	A
F-47-47C-485-486	'48	55/64	P	pc	1.0316x1 1/8	.0005-.0023	.006-.010	PI	A
GRAHAM									
Six-96	'39	13/16	R	.0005	2 1/16x1 5/16	.0020	.005	Sep	A
Six-97	'39	13/16	R	.0005	2 1/16x1 5/16	.0020	.005	Sep	A
Six-107	'40	13/16	R	.0005	2 1/16x1 5/16	.0020	.005	Sep	A
Six-108	'40	13/16	R	.0005	2 1/16x1 5/16	.0020	.005	Sep	A
HUDSON									
Six-93	'39	3/4	F	.0003	1 15/16x1 3/8	.0003	.007	Spun	A
Six-91	'39	3/4	F	.0003	1 15/16x1 3/8	.0003	.007	Spun	A
Six-92	'39	3/4	F	.0003	1 15/16x1 3/8	.0003	.007	Spun	A
Eight-95	'39	3/4	F	.0003	1 15/16x1 3/8	.0003	.007	Spun	A
Eight-97	'39	3/4	F	.0003	1 15/16x1 3/8	.0003	.007	Spun	A
Six-90	'39	3/4	F	.0003	1 15/16x1 3/8	.0003	.007	Spun	A
Six-98	'39	3/4	F	.0003	1 15/16x1 3/8	.0003	.007	Spun	A
Six-41	'40	3/4	F	.0003	1 15/16x1 3/8	.0003	.007	Spun	A
Six-43	'40	3/4	F	.0003	1 15/16x1 3/8	.0003	.007	Spun	A
Six-48	'40	3/4	F	.0003	1 15/16x1 3/8	.0003	.007	Spun	A
Eight-44	'40	3/4	F	.0003	1 15/16x1 3/8	.0003	.007	Spun	A
Eight-47	'40	3/4	F	.0003	1 15/16x1 3/8	.0003	.007	Spun	A
Six-40	'40	3/4	F	.0003	1 15/16x1 3/8	.0003	.007	Spun	A
Six 10	'41	3/4	F	.0003	1 15/16x1 3/8	.0003	.007	Spun	A
Six 11, 12	'41	3/4	F	.0003	1 15/16x1 3/8	.0003	.007	Spun	A
Six 18	'41	3/4	F	.0003	1 15/16 1 3/8	.0003	.007	Spun	A
Eight	'41	3/4	F	.0003	1 15/16x1 3/8	.0003	.007	Spun	A
"6"—20 Sp.	'42	3/4	F	.0003	1 15/16x1 3/8	.0003	.007	Spun	A
"6"—20P, 21, 22	'42	3/4	F	.0003	1 15/16x1 3/8	.0003	.007	Spun	A
"6"—28	'42	3/4	F	.0003	1 15/16x1 3/8	.0003	.007	Spun	A
"8"	'42	3/4	F	.0003	1 15/16x1 3/8	.0003	.007	Spun	A
Six—51, 52	'46	3/4	F	.0003	1 15/16x1 3/8	.0005	.010	Spun	A
Eight—53, 54	'46	3/4	F	.0003	1 15/16x1 3/8	.0005	.010	Spun	A
Six—171, 172	'47	3/4	F	.0003	1 15/16x1 3/8	.0003-.0006	.007-.013	DB	A
Eight—173, 174	'47	3/4	F	.0003	1 15/16x1 3/8	.0003-.0006	.007-.013	DB	A
Series 481	'48	31/32	Lr	pf	2.125x1.625	—	.007-.013	PI	A
Series 482	'48	31/32	Lr	pf	2.125x1.625	—	.007-.013	PI	A
Series 483	'48	3/4	Lr	pf	1.9375x1.375	—	.007-.013	SB	A
Series 484	'48	3/4	Lr	pf	1.9375x1.375	—	.007-.013	SB	A
HUPMOBILE									
6-922E	'39	7/8	F	y	2 1/8x1 1/4	.0015	.005	Sep	A
6-925H	'39	7/8	F	y	2 1/4x1 1/4	.0015	.005	Sep	A

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PISTON PINS AND CONNECTING RODS

Make and Model	Year	Piston Pins—Diameter	Piston Pins—Locking Method	Piston Pins—Clearance (Minimum-Maximum)	Conn. Rod Bearings—Diameter and Length	Conn. Rod Bearings—Clearance (Min.-Max.)	Conn. Rod Bearings—End Play (Min.-Max.)	Direct Babbitt or Precision Insert	Pistons and Rods removed from above or below
KAISER		**PISTON PINS**			**CONNECTING RODS**				
K-100	'47	.913-.914	Lr	.1858-.2045	D:L	.0005-.0023	.002-.004	DB	A
K-100-101-481-482	'48	55/64	P	pc	1.0316x1 1/8	.0005-.0023	.006-.010	PI	A
LA SALLE									
39-50	'39	7/8	F	PF	2 39/64x2 1/32	.0015	.003	Sep	A
40-50 and 40-52	'40	7/8	F	PF	2.460x2 1/32	.0015	.003	Sep	A
LINCOLN									
Lincoln, Continental	'41	3/4	F	.0005	2 1/8x7/8	.001-.0025	.002	Sep	A
Lincoln, Linc. Cont.	'47	.7502	F	p;r	2.250x.787	.001-.0025	.014	PI	A
Lincoln, Linc. Cont.	'48	.7502	F	p;r	2.250-.787	.001-.0025	.014	PI	A
MERCURY									
Mercury	'39	3/4	F	.0002	2.36x.871	.0015	.006	F	A
Mercury	'40	3/4	F	.0002	2.36x.871	.0015	.006	F	A
Mercury	'41	3/4	F	.0002	b	.0015	.004	F	A
Mercury	'42	3/4	F	.0002	b	.0015	.004	F	A
114 & 114X	'46	.7505	F	.0000-.0003S	2.00x.84	.0003-.0028	.006-.014	R	A
118	'46	.7505	F	.0000-.0003S	2.14x.84	.0003-.0028	.006-.014	R	A
114, 114X & 118	'47	.7505	F	.0000-.0003S	2.14x.84	.0003-.0028	.006-.014	PI	A
114, 114X & 118	'48	.7505	F	.0000-.0003S	2.14-.84	.0003-.0028	.006-.014	PI	A
MONARCH									
Monarch	'46	.7505	F	.0000-.0003S	2.14x.84	.0003-.0028	.006-.014	R	A
Monarch	'47	.7505	F	.0000-.0003S	2.14x.84	.0003-.0028	.006-.014	PI	A
Monarch	'48	.7505	F	.0000-.0003S	2.14x.84	.0003-.0028	.006-.014	PI	A
NASH									
Lafayette	'39	7/8	F	.0001	2x1 27/64	.0025	.012	Sep	A
Ambassador 6	'39	7/8	F	.0001	2x1 27/64	.0025	.012	Sep	A
Ambassador 8	'39	7/8	F	.0001	2x1 15/64	.0025	.012	Sep	B
Lafayette	'40	.8745	F	.0001	2x1 27/64	.0015	.008	Sep	A
Ambassador 6	'40	.8745	F	.0001	2x1 27/64	.0015	.008	Sep	A
Ambassador 8	'40	.8747	F	.0001	2x1 15/64	.0015	.008	Sep	A
Ambassador 600	'41	13/16	F	.0001	1.875x1 1/4	.0015	.004	Sep	A
Ambassador 6	'41	7/8	F	.0001	2x1 27/64	.0015	.008	Sep	A
Ambassador 8	'41	7/8	F	.0001	2x1 1/4	.0015	.008	Sep	A
4240—"6"	'42	13/16	F	.0001	2x1 1/4	.0015	.004	Sep	A
4260—"6"	'42	7/8	F	.0001	2x1 27/64	.0015	.008	Sep	A
4280—"8"	'42	7/8	F	.0001	2x1 1/4	.0015	.008	Sep	A
Series 4640	'46	13/16	F	.0010	1 7/8x1 1/4	.0017	.009	Sep	A
Series 4660	'46	7/8	F	.0010	2.002x1.426	.0020	.010	Sep	A
Series 4740	'47	13/16	F	S	1 7/8x1 1/4	.0015-.002	.006-.012	PI	A
Series 4760	'47	7/8	F	S	2.002x1.436	.0015-.0025	.006-.014	PI	A
Series 4840	'48	.8125	P	pp	1 7/8x1 1/4	.0015-.002	.006-.012	PI	A
Series 4860	'48	.875	P	pp	2.002x1.436	.0015-.0025	.006-.014	PI	A

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PISTON PINS AND CONNECTING RODS

Make and Model	Year	Piston Pins—Diameter	Piston Pins—Locking Method	Piston Pins—Clearance (Minimum-Maximum)	Conn. Rod Bearings—Diameter and Length	Conn. Rod Bearings—Clearance (Min.-Max.)	Conn. Rod Bearings—End Play (Min.-Max.)	Direct Babbitt or Precision Insert	Pistons and Rods removed from above or below
OLDSMOBILE		**PISTON PINS**			**CONNECTING RODS**				
Six	'39	55/64	P	.0003	2 1/8 x 1 3/8	.0005	.0055	Sep	A
35-00 & 36-00	'40	55/64	P	.0003	2 1/8 x 1 3/8	.0050	.0055	Sep	A
Six	'41	55/64	P	.0003	2 1/8 x 1 1/4	.0015	.0055	Sep	A
Eight	'41	55/64	P	.0003	2 1/8 x 1 3/8	.0015	.0055	Sep	A
Six	'42	55/64	P	.0003	2 1/8 x 1 1/4	.0015	.0055	Sep	A
Eight	'42	55/64	P	.0003	2 1/8 x 1 3/8	.0015	.0055	Sep	A
Six	'46	55/64	P	.0003	2 1/8 x 1 1/4	.0015	.0080	Sep	A
Eight	'46	55/64	P	.0003	2 1/8 x 1 1/4	.0015	.0080	Sep	A
Six	'47	.8554-.8557	P	.0003-.0006∅	2.1245x2.1255	.0005-.0025	.0055-.0105	PI	A
Eight	'47	.8554-.8557	P	.0003-.0006∅	2.1245x2.1255	.0005-.0025	.0055-.0105	PI	A
Six	'48	.8554-.8557	P	.0003-.0006∅	2.1245x2.1255	.0005-.0025	.0055-.0105	PI	A
Eight	'48	.8554-.8557	P	.0003-.0006∅	2.1245x2.1255	.0005-.0025	.0055-.0105	PI	A
PACKARD									
Six	'39	7/8	F	PF	2 3/32 x 1 1/4	.0005	.004	Sep	B
Eight	'39	7/8	F	PF	2 3/32 x 1 1/4	.0005	.004	Sep	B
Super 8	'39	7/8	F	PF	2 3/16 x 1 3/32	.0010	.003	Sep	B
Twelve	'39	7/8	F	PF	2 1/2 x 1 3/8	.0010	.008	Sep	B
Six	'40	7/8	F	PF	2 3/32 x 1 1/4	.0005	.004	Sep	B
Eight	'40	7/8	F	PF	2 3/32 x 1 1/4	.0005	.004	Sep	B
Super 8	'40	7/8	F	PF	2 1/4 x 1 3/8	.0005	.004	Sep	B
110	'41	7/8	F	PF	2 3/32 x 1 1/4	.0005	.004	Sep	A
120	'41	7/8	F	PF	2 3/32 x 1 1/4	.0005	.004	Sep	A
Super 8	'41	7/8	F	PF	2 1/4 x 1 3/8	.0005	.004	Sep	—
"6"—2000	'42	7/8	F	PF	2 3/32 x 1 1/4	.0005	.004	Sep	A
"8"—2001	'42	7/8	F	PF	2 3/32 x 1 1/4	.0005	.004	Sep	A
"Super 8"—2003, 6	'42	7/8	F	PF	2 1/4 x 1 3/8	.0005	.004	Sep	A
2100	'46	7/8	F	PFT	2 3/32 x 1 1/4	.0005-.0015	.004-.010	PI	—
2101 & 2111	'46	7/8	F	PFT	2 3/32 x 1 1/4	.0005-.0015	.004-.010	PI	—
2103 & 2126	'46	7/8	F	PP	2 1/4 x 1 3/8	.0005-.0015	.004-.010	PI	—
2100 & 2130	'47	7/8	F	PF	2 3/32 x 1 1/4	.0005-.0015	.004-.010	PI	A
2101 & 2111	'47	7/8	F	PF	2 3/32 x 1 1/4	.0005-.0015	.004-.010	PI	A
2103, 2106 & 2126	'47	7/8	F	PP	2 1/4 x 1 3/8	.0005-.0015	.004-.010	PI	A
2201 & 2211	'48	7/8	P	PP	2.250	.005-.0025	.004-.010	PI	A
2202 & 2232	'48	7/8	P	PP	2.250	.005-.0025	.004-.012	PI	A
2206 & 2233	'48	7/8	P	PP	—	—	—	—	—
PLYMOUTH									
Six P-7	'39	55/64	F	FP	2 1/8 x 1 7/32	.0015	.0055	Sep	A
De Luxe 6 P-8	'39	55/64	F	FP	2 1/8 x 1 7/32	.0015	.0055	Sep	A
Six P-9	'40	55/64	F	FP	2 1/8 x 1 7/32	.0015	.0055	Sep	A
De Luxe 6 P-10	'40	55/64	F	FP	2 1/8 x 1 7/32	.0015	.0055	Sep	A
Roadking P-11	'41	55/64	F	FP	2 1/8 x 1 7/32	.0005	.0055	Sep	A
De Luxe 6 P-12	'41	55/64	F	FP	2 1/8 x 1 7/32	.0005	.0055	Sep	A
De Luxe P-14	'42	55/64	F	FP	2 1/8 x 1 7/32	.0005	.0055	Sep	A
P-15	'46	55/64	F	FP	2 1/8 x 1 7/32	.001-.0015	.0055-.0115	Sep	A
P-15	'47	55/64	F	TP	2 1/8 x 1 7/32	.0005-.0025	.0055-.0115	PI	A
P-15	'48	55/64	F	TP	2 1/8 x 1 7/32	.0005-.0025	.0055-.0115	PI	A
PONTIAC									
Chieftain	'39	.865	R	SF	2 5/16 x 1 1/2	.0010	.0065	Spun	A
Arrow	'39	.865	R	SF	2 5/16 x 1 1/2	.0010	.0065	Spun	A
Special 25-00	'40	15/16	P	PF	2 1/8 x 1 9/32	.0011	.0095	Sep	A

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PISTON PINS AND CONNECTING RODS

Make and Model	Year	Piston Pins—Diameter	Piston Pins—Locking Method	Piston Pins—Clearance (Minimum-Maximum)	Conn. Rod Bearings—Diameter and Length	Conn. Rod Bearings—Clearance (Min.-Max.)	Conn. Rod Bearings—End Play (Min.-Max.)	Direct Babbitt or Precision Insert	Pistons and Rods removed from above or below
PONTIAC (Continued)		PISTON PINS			CONNECTING RODS				
Arrow 22-00	'40	.865	R	SF	2 5/16 x 1 1/2	.0010	.0065	Spun	A
Fleet & Torpedo 6	'41	15/16	P	.0004	2 1/8 x 1 9/32	.0011	.0095	Sep	A
Sixes	'42	15/16	P	.0004	2 1/8 x 1 9/32	.0011	.0095	Sep	A
Six	'46	.9375	P	PUF	2 1/8 x 1 9/32	.0011	.005-.010	Sep	A
Eight	'46	.9375	P	PUF	2x1 1/16	.0011	.005-.010	Sep	A
Six	'47	.9375	P	.0004-.0006	2 1/8 x 1 9/32	.0005-.0015	.005-.010	PI	A
Eight	'47	.9375	P	.0004-.0006	2x1 1/16	.0005-.0015	.005-.010	PI	A
Six	'48	.9375	P	.0004-.0006	2 1/8 x 1 9/32	.0005-.0015	.005-.010	PI	A
Eight	'48	.9375	P	.0004-.0006	2x1 1/16	.0005-.0015	.005-.010	PI	A
N.B. Fleet eaders (1941-2-6-7-8) are 20 and 22 Series; Torpedo 6 & 8 (1941-2-6-7-8) are 25 and 27 Series respectively. Streamliner 6 & 8 (1941-2-6-7-8) are 26 and 28 Series respectively; Streamliner 6 & 8 (1948) not distributed in Canada.									
STUDEBAKER									
Commander 6 (9A)	'39	7/8	R	.0001	2 3/16 x 1 3/8	.0005	.005	Spun	A
President 8 (5C)	'39	7/8	R	.0001	1 7/8 x 1 3/16	.00075	.005	Sep	A
Champion "G"	'39	3/4	R	.0001	1 13/16 x 1 1/8	.0005	.005	Spun	A
Commander 6 (10A)	'40	7/8	R	.0001	2 3/8 x 1 3/8	.0005	.005	Spun	A
President 8 (6C)	'40	7/8	R	.0001	1 7/8 x 1 3/16	.00075	.005	Sep	A
Champion 2-G	'40	3/4	R	.0001	1 13/16 x 1 1/8	.0005	.005	Spun	A
Commander 6-11A	'41	7/8	R	.0001	2 3/16 x 1 3/8	.0005	.005	Spun	A
President 8-7C	'41	7/8	R	.0001	1 7/8 x 1 5/16	.0008	.005	Sep	A
Champion 6-3G	'41	3/4	R	.0001	1 13/16 x 1 1/8	.0005	.005	Spun	A
Commander 6-12A	'42	7/8	R	.0001	2 3/16 x 1 3/8	.0005	.005	Spun	A
President 8-8C	'42	7/8	R	.0001	1 7/8 x 1 3/16	.0008	.005	Sep	A
Champion 6-4G	'42	3/4	R	.0001	1 31/16 x 1 1/8	.0005	.005	Spun	A
Skyway, 5G	'46	3/4	R	.0001-.0003	1 13/16 x 1 1/8	.0005	.005	Spun	A
Champion—G6	'47	3/4	R	.0001-.0003	1 13/16 x 1 1/8	.0005-.002	.005-.009	PI	A
Comm.—14A	'47	7/8	R	.0001-.0003	2 3/16 x 1 3/8	.0005-.002	.005-.009	PI	A
Champion—7G	'48	3/4	R	.0005-.002	1.81175-1.81275 1.123-1.126	.0005-.002	.005-.009	PI	A
Comm.—15A	'48	7/8	R	.0005-.002	2.18675-2.18775 1.373-1.376	.0005-.002	.005-.009	PI	A
WILLYS									
Four 48	'39	15/16	F	.0002	1 15/16 x 1 5/16	.0010	004	Spun	A
Overland 39	'39	13/16	R	.0001	1 15/16 x 1 5/16	.0010	.005	Spun	A
Willys 440	'40	13/16	R	.0001	1 15/16 x 1 5/16	.0008	.005	Spun	A
Willys Americar	'41	13/16	R	.0001-.0009	1 15/16 x 1 5/16	.0008	.005	Spun	A
Willys Americar	'42	13/16	R	.0003	1 15/16 x 1 5/16	.0008	.005	Spun	A
CJ-2A Univ. Jeep	'45	.8177	R	.0003	1 15/16 x 1 5/16	.0015	.007	Sep	A
CJ-2A Univ. Jeep	'47	.8117-.8119	R	.0001-.0005	1 15/16 x 1 3/16	.0005-.0025	.005-.009	PI	A
CJ-2A, 2WD, 4WD	'48	.8118	R	FP	1.940 x 1 3/32	.0005-.0025	.004-.010	PI	A
6 63	'48	.7498	R	FP	1.876 x 7/8	.0005-.0025	.004-.010	PI	A

ABBREVIATIONS

A=From above.
a=Outside diameter 2.218; inside
B=From below. length 1.748
b=Outside diameter 2.358; inside 2.139
D=2.1882 2.1902.
DB=Direct babbitt.
F=Floating.
FP=Finger push.
L=1.3035-1.3055.
Lr=Lock ring.
P=Locked in piston.
p=Piston .0006.
pc=.0003 tight; +.0003 loose.
pf=Fit in piston .0000-.0003 + 70°F. Fit in rod—PUF @ 70°F.
pp=Palm drive fit in piston 70°.
PF=Push fit at room temperature. 80-130 pounds per square inch.
PI=Precision insert.
PP=Palm push at 160°F in water.
PUF=Push fit.
R=Locked in rod.
r=Rod .0003.
S=Selective fit.
SB=Spun babbitt.
Sep=Separate.
SF=Slip fit.
TP=Thumb push in piston at 130°F; in rod at 70°F.
y=Push fit at 212°F.
yy=.00005-.0001 at 70°F.
§=2 1/16 x 1 7/16 after bore and stroke change
*=At 160°F.
∅=Clearance between pin and bushing in rod.
X=.0003-.0004inpiston;.0001-.0005inrod

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PISTONS AND PISTON RINGS

Make and Model	Year	Piston Clearance—Top (Minimum-Maximum)	Piston Clearance—Bottom (Minimum-Maximum)	Piston Ring Groove Depth—Oil	Piston Ring Groove Depth—Compression	Cylinder Bore—Inches	No. Oil Rings Used	Oil Ring Gap (Minimum-Maximum)	No. Compression Rings Used	Compression Ring Gap (Minimum-Maximum)
AUSTIN (English)		PISTONS		PISTON RINGS						
A.40	'48	—	—	—	—	2.578	1	.004-.011	2	.004-.011
BUICK										
44 Special	'39	.018	.0015	.164	.148	3 3/32	2	.010	2	.010
46 Century	'39	.026	.0020	.175	.162	3 7/16	2	.010	2	.010
48 Roadmaster	'39	.026	.0020	.175	.162	3 7/16	2	.010	2	.010
49 Limited	'39	.026	.0020	.175	.162	3 7/16	2	.010	2	.010
44-00 & 45-00	'40	.018	.0015	.166	.166	3 3/32	2	.010	2	.155U-.140L
47 Roadmaster	'40	.026	.0020	.179	.179	3 7/16	2	.010	2	.155U-.140L
Spec. 44, Super 45	'41	.023	.0018	.166	.166	3 3/32	2	.010	2	.015U-.012L
Series 46, 47, 49	'41	.026	.0020	.182	.182	3 7/16	2	.010	2	.015U-.012L
Series 44	'42	.023	.0018	.166	.166	3 3/32	2	.010	2	.015U-.012L
Series 46	'42	.026	.0020	.182	.182	3 7/16	2	.010	2	.015U-.012L
Series 50	'46	†	†	.166	.166	3 3/32	2	.015	2	.015
Series 70	'46	†	†	.182	.182	3 7/16	2	.015	2	.015
Series 40	'47	†	†	.167	.167	3 3/32	2	.010-.020	2	.010-.020
Series 50	'47	†	†	.167	.167	3 3/32	2	.010-.020	2	.010-.020
Series 70	'47	†	†	.182	.182	3 7/16	2	.010-.020	2	.010-.020
Series 40, 50, 70	'48	(Not distributed in Canada)								
CADILLAC										
V-8 61	'39	.025	.0021	.153	.151	3 1/2	2	.007	2	.007
V-8 60S, V-8 75	'39	.025	.0021	.153	.151	3 1/2	2	.007	2	.007
V-16 90	'39	.018	.0017	.132	.134	3 1/4	1	.007	2	.007
V-8 62	'40	.025	.0021	.153	.151	3 1/2	2	.007	2	.007
V-8 60S V-8 75	'40	.025	.0021	.153	.151	3 1/2	2	.007	2	.007
All Series	'41	.0196	.0017	.160	.181U-.151L	3 1/2	2	.007	2	.007
All Series	'42	.0196	.0017	160	.181U-.151L	3 1/2	2	.007	2	.007
V-8	'46	.0021	.0005	—	—	3 1/2	1	.015	2	.015
V-8	'47	.0023-.0025‡	.0005	—	—	3 1/2	1	.007-.023	2	.007-.023
V-8	'84	(Not distributed in Canada)								
CHEVROLET										
Six	'39	.0150	.0015	.172	.151	3 1/2	1	.005	2	.005
Six	'40	.0145	.0015	.172	.151	3 1/2	1	.005	2	.005
Six	'41	.0145	.0015	.172	.151	3 1/2	1	.005	2	.005
Six	'42	.0145	.0015	.172	.151	3 1/2	1	.005	2	.005
Six	'46	.0195	—	.176	.156	3 1/2	1	.010	2	.010
Six	'47	P	P	.170-.183	.1490-.1645	3 1/2	1	.005-.015	2	.005-.015
Six	'48	P	P	.186-.191	.167-.172	3 1/2	1	.005-.015	2	.005-.015
CHRYSLER										
Royal 6 C-22	'39	.022	.0050	.177	.157	3 3/8	2	.007	2	.007
De Luxe 8 C-23	'39	.021	.0050	.177	.157	3 1/4	2	.007	2	.007
Cus. Imp. 8 C-24	'39	.021	.0050	.177	.157	3 1/4	2	.007	2	.007
Royal 6 C-25	'40	.022	.0005	.177	.157	3 3/8	2	.007	2	.007
De Luxe 8 C-26	'40	.022	.0005	.177	.157	3 1/4	2	.007	2	.007
Cus. Imp. C-27	'40	.022	.0005	.177	.157	3 1/4	2	.007	2	.007
Royal 6 C-28	'41	.028	.0001	.175	.179U-.154I	3 3/8	2	.007	2	.007

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SUNNEN CYLINDER RECONDITIONING OUTFIT

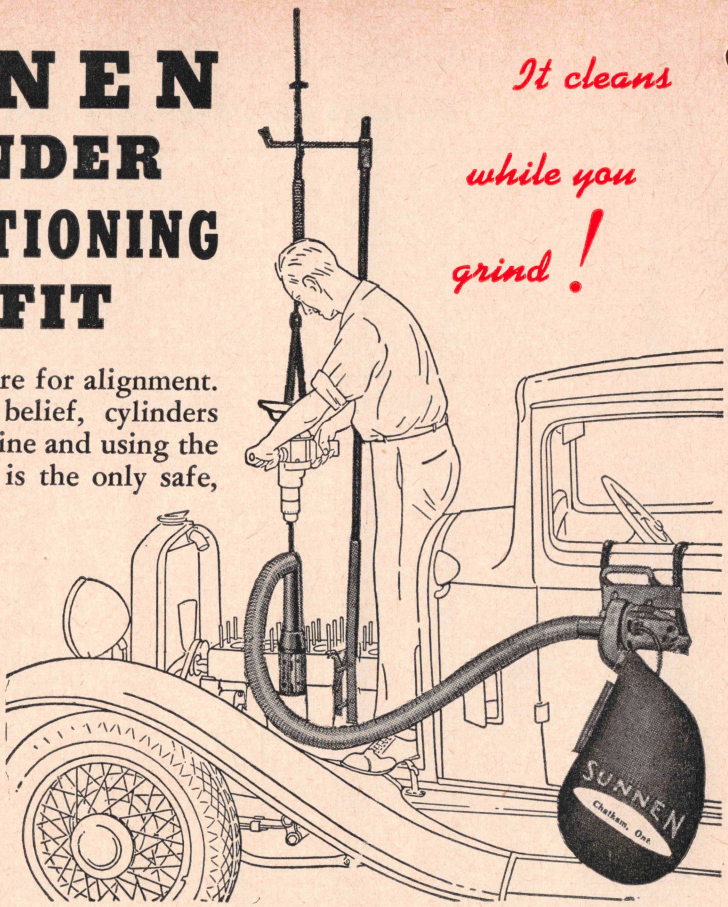
It cleans while you grind!

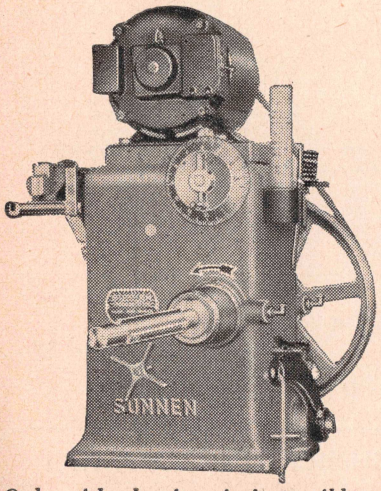
Uses the original bore for alignment. Contrary to some belief, cylinders do not wear out of line and using the manufacturers bore is the only safe, accurate method for cylinder reconditioning.

Produces finish demanded by car and ring manufacturers.

No mess—no studs to remove—no thin walls.

Does job in chassis in one to two hours.





Only with abrasives is it possible to produce smooth and accurate surfaces.

The SUNNEN MODEL "LBN" 2 SPEED BUSHING GRINDER

gives

Positive Accuracy—Positive Control

NOW AVAILABLE—Sunnen Model LBN -640- Wet Honing Attachment for your Model LB or Model LBN Bushing Grinder.

SUNNEN PRODUCTS CO. LIMITED

CHATHAM ONTARIO

PISTONS AND PISTON RINGS

Make and Model	Year	Piston Clearance—Top (Minimum-Maximum)	Piston Clearance—Bottom (Minimum-Maximum)	Piston Ring Groove Depth—Oil	Piston Ring Groove Depth—Compression	Cylinder Bore—Inches	No. Oil Rings Used	Oil Ring Gap (Minimum-Maximum)	No. Compression Rings Used	Compression Ring Gap (Minimum-Maximum)
CHRYSLER—Cont'd		PISTONS				PISTON RINGS				
New Yorker 8 C-30	'41	.022	.0001	.177	.157	3 1/4	2	.007	2	.007
Crown Imp. C-33	'41	.022	.0001	.177	.157	3 1/4	2	.007	2	.007
Royal 6 C-34	'42	.028	.0005	.174	.179	3 7/16	2	.007	2	.007
New Yorker 8 C-36	'42	.022	.0001	.174	.179	3 1/4	2	.007	2	.007
Crown Imp. C-37	'42	.022	.0001	.174	.179	3 1/4	2	.007	2	.007
C-38W, C-38S	'46	.0305	.0010	.175	.1765	3 7/16	2	.007-.015	2	.007-.015
Six C-38W, C-38S	'47	.023	s	.178	.1765	3 7/16	2	.007-.015	2	.007-.015
Eight C-39, C-40	'47	.0305	S-1	.172	.169	3 1/4	2	.007-.015	2	.007-.015
Six C-38W, C-38S	'48	.023	s	.178	.1765	3 7/16	2	.007-.015	2	.007-.015
Eight C-39, C-40	'48	.0305	S-1	.172	.169	3 1/4	2	.007-.015	2	.007-.015
CROSLEY										
Four	'48	.015-.018	.0025-.0035	.128-.135	.123-.135	2.5005	2	.007-.015	2	.062-.0625
DE SOTO										
Six S-6	'39	.022	.0005	.177	.157	3 3/8	2	.007	2	.007
Six S-7	'40	.022	.0005	.177	.157	3 3/8	2	.007	2	007
Six S-8	'41	.028	.0005	.175	.179U-.154I	3 3/8	2	.007	2	.007
Six S-10	'42	.028	.0005	.174	.179	3 7/16	2	007	2	.007
S-11	'46	.0305	.0010	.178	.1765	3 7/16	2	.007-.015	2	.007-.015
S-11	'47	.023	s	.178	.1765	3 7/16	2	.007-.015	2	.007-.015
S-11	'48	.023	s	.178	.1765	3 7/16	2	.007-.015	2	.007-.015
DODGE										
De Luxe 6 D-12	'39	.022	.0005	.171	.151	3 3/8	2	007	2	.007
Stand. 6 D-13	'39	.022	.0005	.171	.151	3 3/8	2	.007	2	.007
Big Six D-11	'39	.022	.0005	.177	.157	3 3/8	2	.007	2	.007
Stand. 6 D-15	'40	.022	.0005	.177	.157	3 3/8	2	.007	2	.007
De Luxe 6 D-16	'40	.022	.0005	.177	.157	3 3/8	2	.007	2	.007
Big Six D-14	'40	.022	.0005	.177	.157	3 3/8	2	.007	2	.007
Kingsway 6 D-20	'41	.028	.0005	.175	.179U-.154I	3 3/8	2	.007	2	.007
De Luxe 6 D-21	'41	.028	.0005	.175	.179U-.154I	3 3/8	2	.007	2	.007
Luxury Liner D-19	'41	.028	.0005	.175	.179U-.154I	3 3/8	2	.007	2	.007
De Luxe D-23	'42	.028	.0005	.175	.179U-.154I	3 3/8	2	.007	2	.007
Custom D-22	'42	.028	.0005	.174	179	3 3/8	2	.007	2	.007
D-25	'46	.023	.0010	.1763	.1763	3 3/8	2	.007-.015	2	.007-.015
D-24	'46	.023	.0010	.1763	.1763	3 3/8	2	.007-.015	2	.007-.015
D-25	'47	.023	s	.1763	.1763	3 3/8	2	.007-.015	2	.007-.015
D-24	'47	.023	s	.1763	.1763	3 3/8	2	.007-.015	2	.007-.015
D-25	'48	.023	s	.1763	.1763	3 3/8	2	.007-.015	2	.007-.015
D-24	'48	.023	s	.1763	.1763	3 3/8	2	.007-.015	2	.007-.015
FORD										
V-8 85	'39	.001	Zero	.148	.140	3 1/16	1	.008	2	.008
V-8 85	'40	.001	Zero	.148	.140	3 1/16	1	.008	2	.008
V-8 85	'41	.001	.0003	.148	.141	3 1/16	1	.008-.013	2	.008-.013
V-8 85	'42	.001	.0003	.148	.141	3 1/16	1	.008-.013	2	.008-.013
De Luxe	'46	.032	.0020	.145-.151	.137-.144	3 1/16	2	.008	2	.005

(Continued on page 37)

For key to abbreviations see page 46

SEE MOTOR MAGAZINE FOR LATEST TECHNICAL INFORMATION
. . . THE MOST COMPLETE MECHANICAL SERVICE AVAILABLE IN CANADA

EVERY Pedrick ENGINEERED SET IS GUARANTEED

Not just the RINGS alone, but the LABOR COST of installing them when operating under a Pedrick Guarantee franchise.



Pedrick engineered sets have to be good to make this guarantee

THE WILKENING MANUFACTURING CO. (CANADA) LIMITED, TORONTO

★ *Turn to page 88 for more information*

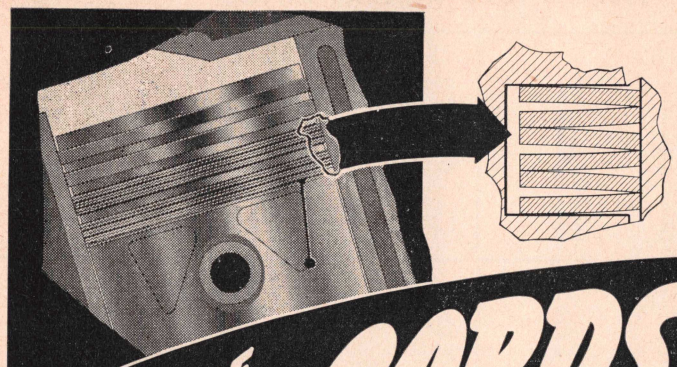
PISTONS AND PISTON RINGS

Make and Model	Year	Piston Clearance—Top (Minimum-Maximum)	Piston Clearance—Bottom (Minimum-Maximum)	Piston Ring Groove Depth—Oil	Piston Ring Groove Depth—Compression	Cylinder Bore—Inches	No. Oil Rings Used	Oil Ring Gap (Minimum-Maximum)	No. Compression Rings Used	Compression Ring Gap (Minimum-Maximum)
FORD—Continued		PISTONS		PISTON RINGS						
Super De Luxe	'46	.032	.0020	.145-.151	.137-.144	3 1/16	2	.008	2	.005
De Luxe & Super De L.	'47	.032	.002	.164-.170	.158-.164	3 3/16	2	.005M	2	.005M
De Luxe & Super De L.	'48	.032	.002	.164-.170	.158-.164	3 3/16	2	.005M	2	.005M
FRAZER										
F-47	'47	.0255-.0315	.008	2.938-2.928	2.941-2.937	3 5/16	2	.008-.016	2	.008-.016
F-47-47C-485-486	'48	.0255-.0315	f	.1755-.1825	.1745-.1810	3 5/16	2	.008-.016	2	.008-.016
GRAHAM										
Six-96	'39	.012	.0025	.1875	.1675	3 1/4	2	.007	2	.007
Six-97	'39	.012	.0025	.1875	.1675	3 1/4	2	.007	2	.007
Six-107	'40	.012	.0025	.1875	.1675	3 1/4	2	.007	2	.007
Six-108	'40	.012	.0025	.1875	.1675	3 1/4	2	.007	2	.007
HUDSON										
Six-93	'39	.016	.0005	5/32	5/32	3	2	.009	2	.009
Six-91	'39	.016	.0005	5/32	5/32	3	2	.009	2	.009
Six-92	'39	.016	.0005	5/32	5/32	3	2	.009	2	.009
Eight-95	'39	.016	.0005	5/32	5/32	3	2	.009	2	.009
Eight-97	'39	.016	.0005	5/32	5/32	3	2	.009	2	.009
Six-90	'39	.016	.0005	5/32	5/32	3	2	.009	2	.009
Six-98	'39	.016	.0005	5/32	5/32	3	2	.009	2	.009
Six-41	'40	.016	.0005	.1485	.1435	3	2	.009	2	.009
Six-43	'40	.016	.0005	.1485	.1485	3	2	.009	2	.009
Six-48	'40	.016	.0005	.1485	.1485	3	2	.009	2	.009
Eight 44	'40	.016	.0005	.1485	.1485	3	2	.009	2	.009
Eight-47	'40	.016	.0005	.1485	.1485	3	2	.009	2	.009
Six-40	'40	.016	.0005	.1485	.1485	3	2	.009	2	.009
Six	'41	.016	.0005	.1485	.1485	3	2	.009	2	.009
Eight	'41	.016	.0005	.1485	.1485	3	2	.009	2	.009
Sixes	'42	.016	.0005	.1485	.1485	3	2	.009	2	.009
Eights	'42	.016	.0005	.1485	.1485	3	2	.009	2	.009
Six-51, 52	'46	.016	.0008	.1480	.1480	3	2	.010	2	.010
Eight-53, 54	'46	.016	.0008	.1480	.1480	3	2	.010	2	.010
Six-171, 172	'47	.016-.020	.0008	.14625	.14625	3	2	.009-.011	2	.009-.011
Eight-173, 174	'47	.016-.020	.0008	.14625	.14625	3	2	.009-.011	2	.009-.011
Series 481	'48	.00125-.00225	.0005-.001	.195	.195	3 5/16	2	.007-.012	2	.007-.012
Series 482	'48	.00125-.00225	.0005-.001	.195	.195	3 5/16	2	.007-.012	2	.007-.012
Series 483	'48	.001-.0015	.0005-.001	.148	.148	3	2	.004-.009	2	.004-.009
Series 484	'48	.001-.0015	.0005-.001	.148	.148	3	2	.004-.009	2	.004-.009
HUPMOBILE										
8-922E	'39	—	.0021	.151	.151	3 1/2	2	.007	2	.007
8-925H	'39	—	.0021	.142	.142	3 3/16	2	.007	2	.007
KAISER										
K-100	'47	.0255-.0315	.008	2.938-2.928	2.941-2.937	3 5/16	2	.008-.016	2	.008-.016
K-100-101-481-482	'48	.0255-.0315	f	.1755-.0825	.1745-.1810	3 5/16	2	.008-.016	2	.008-.016

(Continued on page 39)

For key to abbreviations see page 46

SEE MOTOR MAGAZINE FOR LATEST TECHNICAL INFORMATION
. . . THE MOST COMPLETE MECHANICAL SERVICE AVAILABLE IN CANADA



The Dished or Cupped Sections provide lateral pressure as well as multiple oil channels to insure the Cords Perfect Seal.

Say GOOD-BYE to "BLOW BY" with CORDS Perfect-Seal PISTON RINGS

Oil does not drain away through Cords Rings. A thin film of lubrication is carried right to the top of the cylinder wall, insuring against scuffing or wear during the critical 'run-in' period.

P.S.

Made by

CORDS PISTON RING CO. OF CANADA LTD.

and Distributed by--

Cords Piston Ring Sales, 1347 Notre Dame St. W., Montreal, Quebec

Cords Piston Rings, 468 Dovercourt Road, Toronto, Ontario.

Sherry Auto Parts, Belleville, Ontario.

Motor Service & Supply, Hamilton, Ontario.

Quality Motors Parts Ltd., Regina, Sask.

Edmonton Auto Parts Co., 10260-102nd Street, Edmonton, Alberta.

Duncan Auto Accessories, 601-8th Avenue West, Calgary, Alberta.

McNaughton Motors Ltd., 371 Notre Dame Ave., Winnipeg, Man.

Provincial Motors Ltd., 1042 Alberni Street, Vancouver, B.C.

It's the Perfect Seal that is the underlying principle of Cords, the feature that has won this thermo-shaped ring acclaim from coast to coast. Constantly acting, expanding and contracting to conform to the cylinder walls, each individual section of the Cord Ring exerts firm yet gentle pressure the whole length of the ring travel. On new and re-bore jobs alike Cords Perfect Seal Rings add thousands of miles of smooth efficient service.

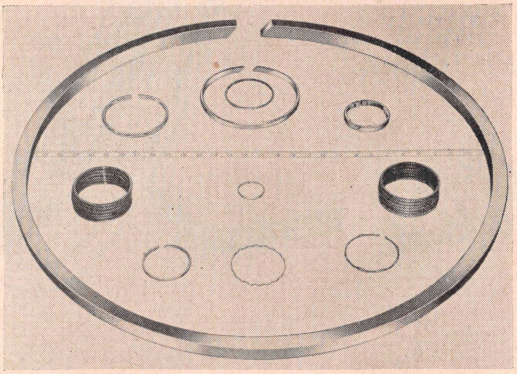
★ *Turn to page 88 for more information*

PISTONS AND PISTON RINGS

Make and Model	Year	Piston Clearance—Top (Minimum-Maximum)	Piston Clearance—Bottom (Minimum-Maximum)	Piston Ring Groove Depth—Oil	Piston Ring Groove Depth—Compression	Cylinder Bore—Inches	No. Oil Rings Used	Oil Ring Gap (Minimum-Maximum)	No. Compression Rings Used	Compression Ring Gap (Minimum-Maximum)
LA SALLE		PISTONS				PISTON RINGS				
39-50	'39	.023	.0019	.154	.152	3 3/8	2	.007	2	.007
40-50 and 40-52	'40	.023	.0019	.154	.152	3 3/8	2	.007	2	.007
LINCOLN										
Lincoln, Linc. Cont.	'41	.003	.0020	.151U-.159L	.159	2 7/8	1	.008-.013	2	.008-.013
Lincoln, Linc. Cont.	'47	.012	.002	.164	.153U-.1645L	2 7/8	1	.008-.013	2	.012-.017
Lincoln, Linc. Cont.	'48	.012	.002	.164	.153U-.1645L	2 7/8	1	.008-.013	2	.012-.017
MERCURY										
Mercury	'39	.001	Zero	.163	.162	3 3/16	1	.008	2	.008
Mercury	'40	.001	Zero	.163	.162	3 3/16	1	.009	2	.009

(Continued on page 43)

For key to abbreviations see page 46



PRESSURE PROOF

THE COMPLETE PISTON RING LINE

Bring Your Sealing Problems to Us

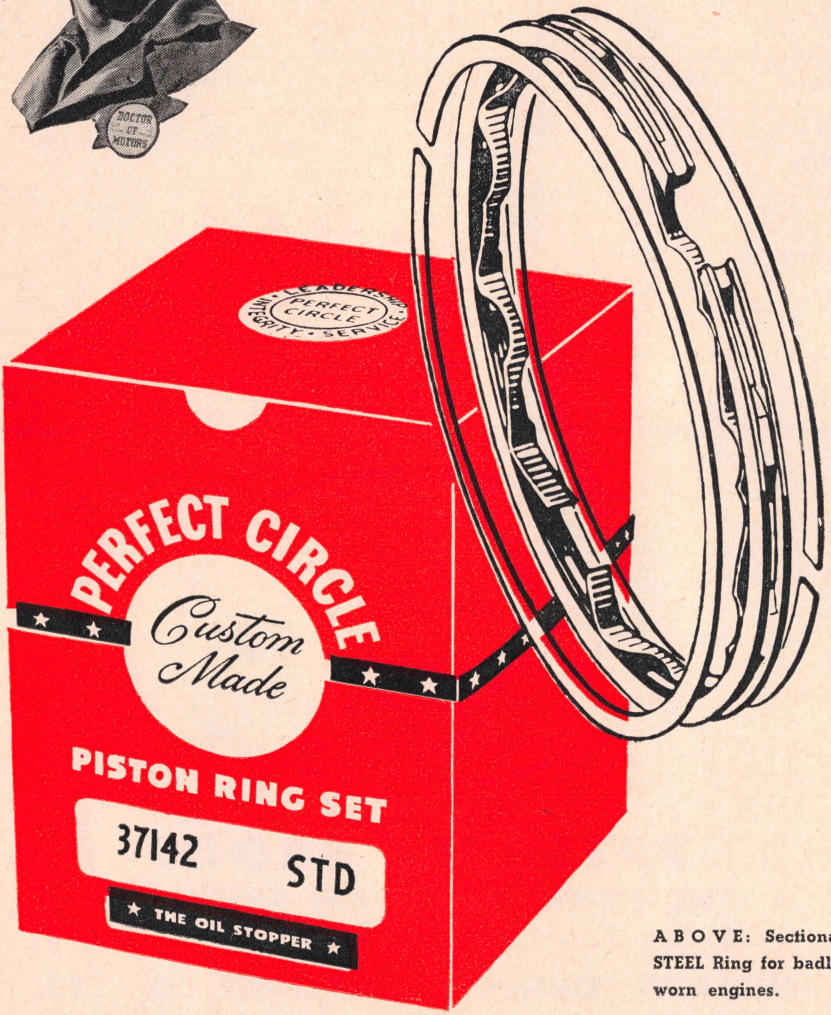
MIDLAND FOUNDRY & MACHINE CO., LTD.

MIDLAND CANADA

★ *Turn to page 88 for more information*

THESE PISTON RINGS



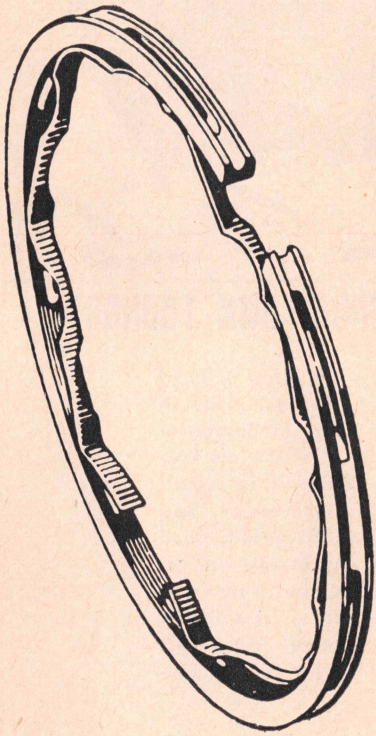


ABOVE: Sectional STEEL Ring for badly worn engines.

★ *Turn to page 88 for more information*

STOP OIL PUMPING

Perfect Circle make a set of piston rings for every engine. With sectional steel oil rings for the worst or badly worn oil pumpers . . . with less severe oil rings for the slightly worn or rebuilt engines.



RIGHT: Less severe oil ring for slightly worn engines.

Perfect Circle Custom Made Sets are the Jobber's best bet because they provide the Automotive Mechanic full coverage for (1) Make and Model of Engine, (2) Condition of Engine (badly worn, border line, slightly worn), and (3) Type of Service (stop and go, all-purpose, cross country).

The Doctor of Motors finds it very easy to select the one right combination of **Perfect Circle Piston Rings** for any engine — by using the new **Perfect Circle** Catalogue.

Canadian Made for the Canadian Trade

THE PERFECT CIRCLE COMPANY LTD.

TORONTO — CANADA

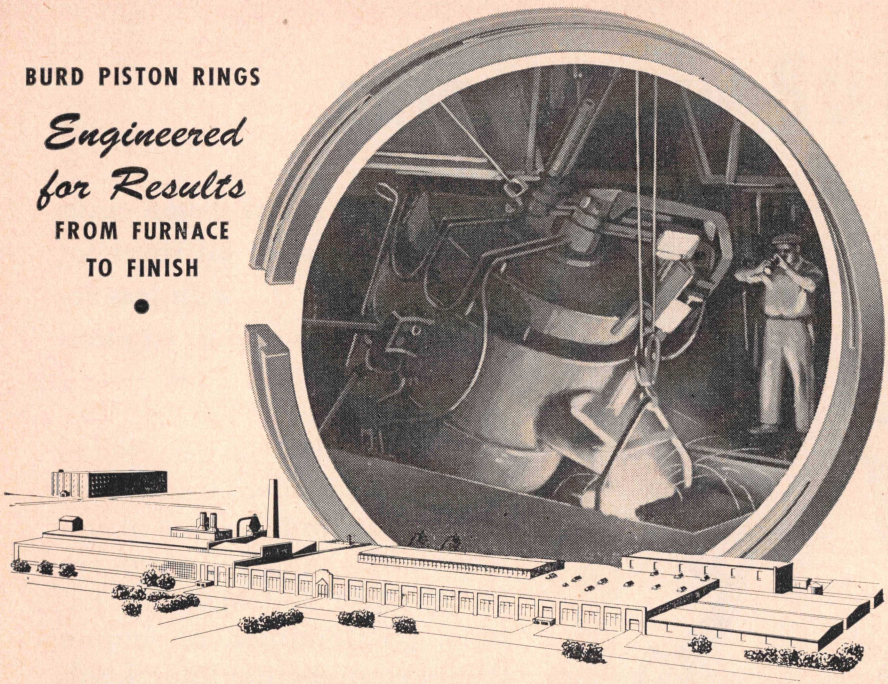
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BURD PISTON RINGS

Engineered for Results

FROM FURNACE TO FINISH

●



CONTROLLED QUALITY BEGINS IN BURD'S OWN FOUNDRY

● Exact metallurgical control is vital in the production of Burd "Graf-Flox" Piston Rings. Iron of special analysis, made in Burd's own *electric* furnaces, is given just the right degree of hardness, flexibility, tension . . . and long-life. That's one *big* reason why Burd Piston Rings perform so efficiently in rebuilt engines. Finished to the most exacting specifications, and "Graf-Flox" treated to eliminate the usual run-in period, Burd Piston Rings attain a new high in sealed compression and oil control. When you specify Burd Piston Rings, you profit from Burd's reputation for outstanding dependability . . . you insure satisfaction, both for yourself and your customers. So install Burd "Graf-Flox" Piston Rings . . . they're "Engineered for Results" from furnace to finish.



BURD PISTON RING COMPANY

Eastern Warehouse: 134 GEORGE STREET, TORONTO, ONTARIO
Western Warehouse: 126 LOMBARD STREET, WINNIPEG, MANITOBA

★ *Turn to page 88 for more information*

PISTONS AND PISTON RINGS

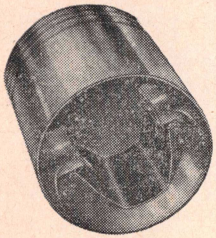
Make and Model	Year	Piston Clearance—Top (Minimum-Maximum)	Piston Clearance—Bottom (Minimum-Maximum)	Piston Ring Groove Depth—Oil	Piston Ring Groove Depth—Compression	Cylinder Bore—Inches	No. Oil Rings Used	Oil Ring Gap (Minimum-Maximum)	No. Compression Rings Used	Compression Ring Gap (Minimum-Maximum)
MERCURY—Continued		PISTONS		PISTON RINGS						
Mercury	'41	.001	.0003	.167	.161	3 3/16	1	.009-.014	2	.009-.014
Mercury	'42	.001	.0003	.161	.161	3 3/16	1	.009-.014	2	.009-.014
114 & 114X	'46	.032	.002	.145-.151	.137-.144	3 1/16	2	.008	2	.005
118	'46	.032	.002	.164-.170	.158-.164	3 3/16	2	.008	2	.005
114, 114X & 118	'47	.032	.002	.164-.170	.158-.164	3 3/16	2	.005M	2	.005M
114, 114X & 118	'48	.032	.002	.164-.170	.158-.164	3 3/16	2	.005M	2	.005M
MONARCH										
Monarch	'46	.032	.002	.164-.170	.158-.164	3 3/16	2	.008	2	.005
Monarch	'47	.032	.002	.164-.170	.158-.164	3 3/16	2	.005M	2	.005M
Monarch	'48	.032	.002	.164-.170	.158-.164	3 3/16	2	.005M	2	.005M
NASH										
Lafayette	'39	.020	.0010	.176	.154	3 3/8	2	.015	2	.015
Ambassador 6	'39	.020	.0010	.176	.154	3 3/8	2	.015	2	.015
Ambassador 8	'39	.018	.0010	.166	.150	3 1/8	2	.015	2	.015
Lafayette	'40	.020	.0010	.175	.155	3 3/8	2	.015	2	.015
Ambassador 6	'40	.020	.0010	.175	.155	3 3/8	2	.015	2	.015
Ambassador 8	'40	.018	.0010	.166	.150	3 1/8	2	.015	2	.015
Ambassador 600	'41	.017	.0010	.175	.155	3 1/8	1	.010	2	.010
Ambassador 6	'41	.020	.0010	.175	.155	3 3/8	2	.010	2	.010
Ambassador 8	'41	.018	.0010	.175	.155	3 1/8	2	.010	2	.010
4240—"6"	'42	.017	.0010	.175	.155	3 1/8	1	.010	2	.010
4260—"6"	'42	.020	.0010	.175	.155	3 3/8	2	.018	2	.020
4280—"8"	'42	.018	.0010	.175	.155	3 1/8	2	.010	2	.020
Series 4640	'46	.015	.0010	.174	(a)	3 1/8	1	.020	2	.015
Series 4660	'46	—	.0010	.175	.155	3 3/8	2	.015	2	.015
Series 4740	'47	S	S	.174	(a)	3 1/8	1	.010-.020	2	.010-.020
Series 4760	'47	S	S	.175	.155	3 3/8	2	.010-.015	2	.010-.015
Series 4840	'48	—	.0015	5/32	5/32	3 1/8	1	.012-.015	2	.012-.015
Series 4860	'48	—	.002	5/32	5/32	3 3/8	2	.012-.015	2	.012-.015
OLDSMOBILE										
Six	'39	.026	.0013	11/64	5/16	3 7/16	2	.007	2	.008
35-00 & 36-00	'40	.026	.0013	5/16	11/64	3 7/16	2	.007	2	.008
Six	'41	.026	.0007	.171	.187	3 1/2	2	.007	2	.008
Eight	'41	.023	.0013	11/64	5/32	3 1/4	2	.009	2	.009
Six	'42	.026	.0007	.171	.187	3 1/2	2	.007	2	.008
Eight	'42	.023	.0013	11/64	5/32	3 1/4	2	.009	2	.009
Six	'46	.0255	.0007	.171	.187	3 1/2	2	.011	2	.013
Eight	'46	.0255	.0015	.171	.171	3 1/4	2	.011	2	.011
Six	'47	.0005-.001°	.0005-.001°	.173-.177	.181-.184	3 1/2	2	.009-.014	2	.008-.015
Eight	'47	.0013-.0018°	.0013-.0018°	.162-.170	.158-.164	3 1/4	2	.009-.014	2	.009-.014
Six	'48	.0005-.001	.0005-.001	.173-.177	.181-.184	3 1/2	2	.009-.014	2	.008-.015
Eight	'48	.0013-.0018	.0013-.0018	.162-.170	.158-.164	3 1/4	2	.009-.014	2	.009-.014
PACKARD										
Six	'39	—	.0010	.1835	.161	3 1/2	1	.007	2	.007
Eight	'39	—	.0010	.1787	.156	3 1/4	1	.007	2	.007
Super 8	'39	—	.0010	.1545	.153	3 3/16	2	.007	2	.007

(Continued on page 45)

For key to abbreviations see page 46

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. . . THE MOST COMPLETE MECHANICAL SERVICE AVAILABLE IN CANADA

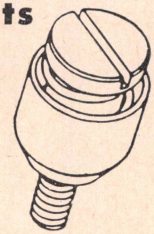
A Quick Answer to 3 Big Service Problems



THEXTON PISTON EXPANDER STOPS SLAP...SAVES RINGS

Give that new ring job longer life with Thexton Piston Expanders. Designed to eliminate piston slap and cut oil pumping, Thexton Expanders push out bearing surface of piston to conform to cylinder wall. Available for split-skirt or solid-skirt pistons.

Smoother Running for Chevrolets with THEXTON Expansion Bolt



Complete your next Chevrolet tune-up with Thexton Expansion bolt. By taking up play in distributor linkage, the Expansion Bolt eliminates dead spots caused by delayed action in vacuum control. Insures a smoother running engine and a satisfied customer

THEXTON OIL PRESSURE REGULATOR Restores Pressure to Chrysler-Built Cars



Made especially for Chrysler-built cars, the Thexton Oil Pressure Regulator restores oil pressure to the entire engine—saves wear on vital moving parts. Restore oil pressure to worn motors in a flash with this easy-to-install Thexton product.

Thexton

Canadian Distributors

COLONIAL TRADERS, LTD.

Established 1907 569-571 King Street East - Toronto, Ontario

★ *Turn to page 88 for more information*

PISTONS AND PISTON RINGS

Make and Model	Year	Piston Clearance—Top (Minimum-Maximum)	Piston Clearance—Bottom (Minimum-Maximum)	Piston Ring Groove Depth—Oil	Piston Ring Groove Depth—Compression	Cylinder Bore—Inches	No. Oil Rings Used	Oil Ring Gap (Minimum-Maximum)	No. Compression Rings Used	Compression Ring Gap (Minimum-Maximum)
PACKARD—Cont.		PISTONS				PISTON RINGS				
Twelve	'39	—	.0010	.1852	.165	3 7/16	1	.007	3	.007
Six	'40	—	.0010	—	—	3 1/2	1	.007	2	.007
Eight	'40	—	.0010	—	—	3 1/4	1	.007	2	.007
Super 8	'40	—	.0010	—	—	3 1/2	1	.007	2	.007
110	'41	—	.0005	.182	.188U-.184L	3 1/2	1	.007	2	.007
120	'41	—	.0005	.176	.178	3 1/4	1	.007	2	.007
Super 8	'41	—	.0005	.182	.188U-.184L	3 1/2	1	.007	2	.007
"6"—2000	'42	—	.0013	.188	.1867U-.1617L	3 1/2	1	.007	2	.007
"8"—2001	'42	—	.0013	.182	.1735U-.1565L	3 1/4	1	.007	2	.007
"Super 8"—2003, 6	'42	—	.0005	.182	.188U-.184L	3 1/2	1	.007	2	.007
2100	'46	—	.0005-.001	—	—	3 1/2	1	.007-.015	2	.007-.017
2101 & 2111	'46	—	.0005-.001	—	—	3 1/4	1	.007-.015	2	.007-.017
2103 & 2126	'46	—	.0005-.001	—	—	3 1/2	1	.007-.015	2	.007-.017
2100 & 2130	'47	—	.0005-.001	—	—	3 1/2	1	.007-.015	2	.007-.017
2101 & 2111	'47	—	.0005-.001	—	—	3 1/4	1	.007-.015	2	.007-.017
2103, 2106 & 2126	'47	—	.0005-.001	—	—	3 1/2	1	.007-.015	2	.007-.017
2201, 2211	'48	—	.0005-.001	—	—	—	1	.007-.015	2	.007-.017
2202, 2232	'48	—	.0005-.001	—	—	—	1	.007-.015	2	.007-.017
2206-2233	'48	—	.0005-.001	—	—	—	1	.007-.015	2	.007-.017
PLYMOUTH										
Six P-7	'39	.022	.0005	.171	.151	3 3/8	2	.007	2	.007
De Luxe 6 P-8	'39	.022	.0005	.171	.151	3 3/8	2	.007	2	.007
Six P-9	'40	.022	.0005	.177	.157	3 3/8	2	.007	2	.007
De Luxe 6 P-10	'40	.022	.0005	.177	.157	3 3/8	2	.007	2	.007
Roadking P-11	'41	.028	.0005	.175	.179U-.154I	3 3/8	2	.007	2	.007
De Luxe 6 P-12	'41	.028	.0005	.175	.179U-.154I	3 3/8	2	.007	2	.007
De Luxe P-14	'42	.028	.0005	.174	.179	3 3/8	2	.007	2	.007
P-15	'46	.023	.0010	.1763	.1763	3 3/8	2	.007-.015	2	.007-.015
P-15	'47	.023	s	.1763	.1763	3 3/8	2	.007-.015	2	.007-.015
P-15	'48	.023	s	.1763	.1763	3 3/8	2	.007-.015	2	.007-.015
PONTIAC										
Chieftain	'39	.0250	.0013	.178	.157	3 9/16	1	.007	2	.007
Arrow	'39	.0150	.0015	.172	.151	3 1/2	1	.005	2	.005
Special 25-00	'40	.0235	.0020	.189	.169	3 7/64	1	.012	2	.011
Arrow 22-00	'40	.0145	.0015	.172	.151	3 1/2	1	.005	2	.005
Fleetleader	'41	.0235	.0020	.193	.187	3 9/16	1	.010	2	.010
Torpedo 6	'41	.0235	.0020	.193	.187	3 9/16	1	.012	2	.012
Fleetleader 6	'42	.0235	.0020	.193	.187	3 9/16	1	.010	2	.010
Torpedo 6 & De Luxe	'42	.0235	.0020	.193	.187	3 9/16	1	.012	2	.012
Six	'46	.0235	.0020	.194	.192	3 9/16	1	.012	2	.009
Eight	'46	.0225	.0020	.189	.169	3 1/4	1	.009	2	.011
Six	'47	@	@	.191-.197	.176-.186	3 9/16	1	.009-.014	2	.007-.012
Eight	'47	@	@	.185-.191	.152-.162	3 1/4	1	.007-.017	2	.007-.012
Six	'48	@	@	.191-.197	.176-.186	3 9/16	1	.009-.014	2	.007-.012
Eight	'48	@	@	.185-.191	.152-.162	3 1/4	1	.007-.017	2	.007-.012

N.B. Fleetleaders (1941-2-6-7-7) are 20 and 22 Series; Torpedo 6 & 8 (1941-2-6-7-7) are 25 and 27 Series respectively. Streamliner 6 & 8 (1941-2-6-7-8) are 26 and 28 Series respectively; Streamliner 6 & 8 (1948) not distributed in Canada.

(Continued on page 46)

For key to abbreviations see page 46

SEE MOTOR MAGAZINE FOR LATEST TECHNICAL INFORMATION

. . . THE MOST COMPLETE MECHANICAL SERVICE AVAILABLE IN CANADA

PISTONS AND PISTON RINGS

Make and Model	Year	Piston Clearance—Top (Minimum-Maximum)	Piston Clearance—Bottom (Minimum-Maximum)	Piston Ring Groove Depth—Oil	Piston Ring Groove Depth—Compression	Cylinder Bore—Inches	No. Oil Rings Used	Oil Ring Gap (Minimum-Maximum)	No. Compression Rings Used	Compression Ring Gap (Minimum-Maximum)
STUDEBAKER		PISTONS				PISTON RINGS				
Commander 6 (9A)	'39	.016	.0015	.185	.148	3 5/16	1	.007	2	.007
President 8 (5C)	'39	.016	.0015	.173	.137	3 1/16	1	.013	2	.013
Champion "G"	'39	.014	.0015	.165	.160	3	1	.007	2	.007
Comm. 6 (10A)	'40	.016	.0015	.185	.148	3 5/16	1	.007	2	.007
President 8 (6C)	'40	.016	.0015	.173	.137	3 1/16	1	.013	2	.013
Champion 2-G	'40	.014	.0015	.165	.160	3	1	.007	2	.007
Commander 6-11A	'41	.013	.0015	.183	.168	3 5/16	1	.009	2	.009
President 8-7C	'41	.012	.0015	.166	.146	3 1/16	1	.013	2	.013
Champion 6-3G	'41	.014	.0015	.165	.160	3	1	.007	2	.007
Commander 6-12A	'42	.006-.009	.0015	.183	.168	3 5/16	1	.009	2	.009
President 8-8C	'42	.066-.009	.0015	.166	.146	3 1/16	1	.013	2	.013
Champion 6-4G	'42	.006-.009	.0015	.165	.160	3	1	.007	2	.007
Skyway 5G	'46	.006-.009	.0015	.165	.160	3	1	.007	2	.007
Champion 6-G	'47	.014-.019	S	.168	.148	3	1	.007-.017	2	.007-.017
Commander 14-A	'47	.0125-.0175	S	.182	.167	3 5/16	1	.009-.014	2	.009-.014
Champion 7-G	'48	.014-.019	S	.165-.172	.145-.152	3	1	.007-.017	2	.007-.017
Commander 15-A	'48	.0125-.0175	S	.1825-.189	.1675-.174	3 5/16	1	.009-.014	2	.009-.014
WILLYS										
Four 48	'39	.016	.0025	.1665	.1485	3 1/8	1	.008	3	.008
Overland 39	'39	.002	.0025	.170	.160	3 1/8	1	.008	2	.008
Willys 440	'40	.037	.003	.170	.160	3 1/8	1	.008	2	.008
Willys Americar	'41	.0205	.003	.170	.160	3 1/8	1	.008	2	.008
Willys Americar	'42	.010	.002	.170	.160	3 1/8	1	.008	2	.008
CJ-2A Universal Jeep	'45	.0215	.003	—	—	3 1/8	1	.010	2	.010
CJ-2A Universal Jeep	'47	.0205-.0225	.003	—	—	3 1/8	1	.008-.013	2	.008-.013
CJ-2A, 2WD & 4WD	'48	.017-.019	.003	.170	.160	3.125	1	.008-.013	2	.008-.013
6 63	'48	.016-.0185	.0025	.170	.160	3.000	1	.008-.016	2	.010-.016

ABBREVIATIONS

(a)=No. 1-.170; No. 2-.154.

aa=3 3/4x4 3/8 up to engine No. D8-C1001; 3 3/8x4 1/16 after.

@=Piston fit should be such that a .0015 feeler ribbon can be drawn from between the piston and the cylinder wall with a 10-20 pound pull.

bb=3 1/8x4 3/8 up to engine No. D9-C1001; 3 3/8x3 3/4 after.

cc=3 1/8x4 3/8 up to engine No. D10-C1001; 3 3/8x3 3/4 after.

dd=3 1/8x4 3/8 up to engine No. P5-C1001; 3 3/8x3 3/4 after.

ee=3 1/8x4 3/8 up to engine No. P6-C1001; 3 3/8x3 3/4 after.

f=Five to ten pounds pull on .0015 feeler ribbon half inch wide.

I=Intermediate.

L=Lower.

M=Minimum.

P=Pass on .0015 feeler gauge, hold on .003 feeler gauge.

s=Skirt clearance 4-6 pounds pull on a .002x1/2 feeler at 70°F.

S=Selective.

S-1=Skirt clearance 5-7 pounds pull on a .002x1/2 feeler at 70°F.

U=Upper.

†=Piston fit using feeler gauges:

Go	No-go
40-.0015	.002
50-.0015	.002
70-.0015	.002

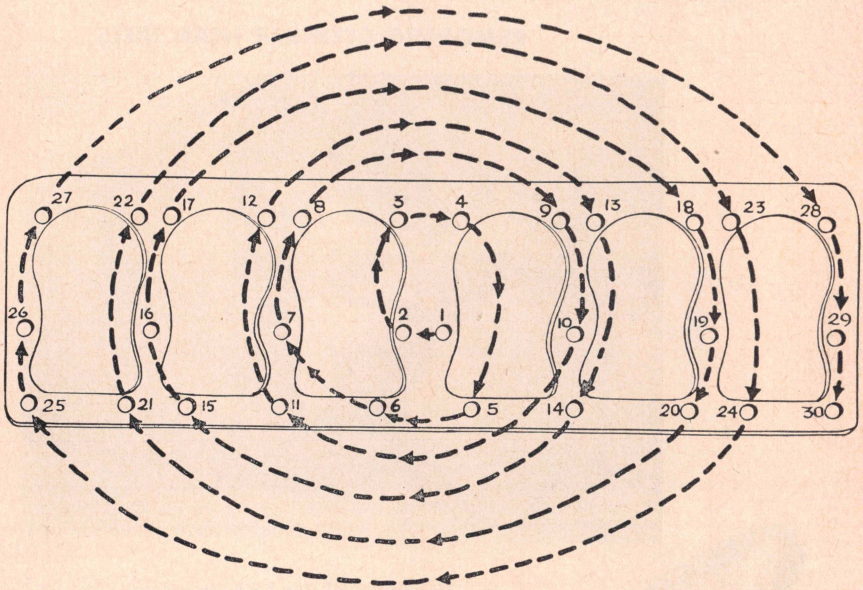
‡=At 70°F.

°=With a 1/2" x 12" x .002" feeler gauge in line with thrust surface and 90° from pin hole should require 4-11 pounds pull on scale to withdraw feeler gauge.

SEE MOTOR MAGAZINE FOR LATEST TECHNICAL INFORMATION

. . . THE MOST COMPLETE MECHANICAL SERVICE AVAILABLE IN CANADA

TORQUE WRENCHES



When tightening cylinder head studs follow the ABOVE diagram when the manufacturer's recommended tightening sequence is not available.

TORQUE is a force, or combination of forces, that tends to produce a rotating or twisting motion, the standard unit of measure being foot pounds. Wrenches designed for measuring the tightness of a nut, or stud, are called torque wrenches.

The absolute necessity of using a torque measuring wrench in the assembly of modern motor vehicles has been definitely established by the leading automotive manufacturers. Practically all up-to-date service manuals contain torque data to be used when assembling the various units after a repair operation.

Always follow the procedure and tightening sequence recommended by the car manufacturer.

See following pages for Torque Tension Chart

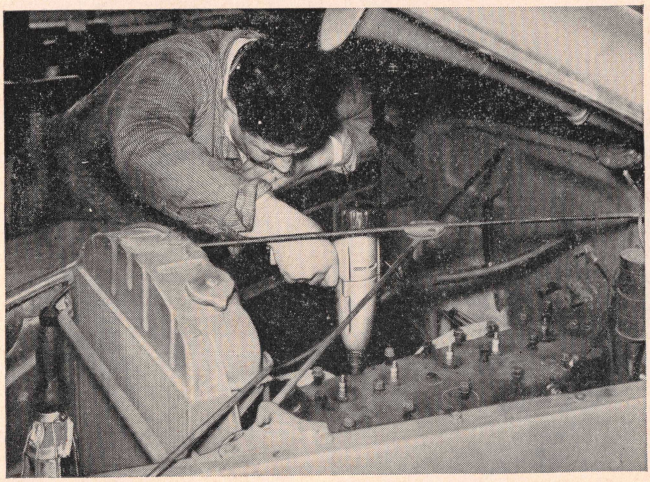
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. . . THE MOST COMPLETE MECHANICAL SERVICE AVAILABLE IN CANADA

Old way - 21 minutes

ROTARY IMPACT way - 3 minutes

REMOVING CYLINDER HEAD NUTS





AMAZING all-purpose ELECTRIC TOOL will

Drill up to 1/4" dia.
Step drill up to 1/2" dia.
Ream up to 1/2" dia.
Tap up to 1/2" dia.
Run nuts up to 3/8" dia.
Drive screws up to 3/8" dia.
Hole-saw up to 1 1/2" dia.
Bore wood up to 29/32" dia.
Drive studs up to 3/8" dia.
Drill masonry up to 3/8" dia.
Extract broken studs up to 3/8" dia.
Wire-brush up to 3/8" dia. shanks
(Uses Standard Attachments)
(110 V or 220 V Models available)
CSA Approval No. 9530

The Ingersoll-Rand Electric Rotary Impact Tool easily saves 90% of the time on nut-running operations. Plugged in any wall socket, it will handle the tough jobs without kick or twist to the operator.

It weighs only 6 1/2 pounds, which coupled with no kick—no twist, enables the mechanic to turn out more jobs with less effort. Many mechanics working on flat rate are increasing their weekly paychecks by turning out more finished jobs every day.

Today you can't afford to be without this time-saving all-purpose tool. Write for Bulletin CF-5030A and name of nearest distributor.

Canadian Ingersoll-Rand Company Limited

620 CATHCART STREET, MONTREAL, QUEBEC.

★ *Turn to page 88 for more information*

TORQUE CHART

MANUFACTURERS' RECOMMENDATIONS FOR PROPER TORQUES

Foot pounds of torque for threads clean and dry. If threads are cleaned and oiled, applied torques should be reduced about 10 per cent.

YEAR	CYLINDER HEADS		Engine Bearings		Fly Wheel To Crankshaft	MANIFOLDS			SPARK PLUGS		
	Cast Iron	Aluminum	Con. Rod Bear. Bolts	Main Bearing Caps		Intake	Exhaust	Water	Cast Iron Heads	Aluminum Heads	Size
BUICK											
40 Before 1940	65-70	—	45-50	60-65	20-25	25-30	25-30	15-20	12-17	—	14MM
60 Before 1940	65-70	—	60-65	60-65	15-20	25-30	25-30	15-20	12-17	—	14MM
40-50 1940-1941	65-70	—	45-50	120-130	45-55	25-30	25-30	10-15	25-30	—	14MM
40-50 1942-1946	65-70	—	45-50	120-130	45-55	25-30	25-30	25-30	22-28	—	14MM
60-70-80-90 1940-1941	65-70	—	60-65	120-130	45-55	25-30	25-30	10-15	7-10	—	10MM
60-70-90 1942-1946	65-70	—	60-65	120-130	45-55	25-30	25-30	25-30	22-28	—	10MM
CADILLAC											
V-8 Before 1940	70-75	—	55-60	130-140	65-70	25-30	25-30	70-75	35-40	—	14MM
V-16 Before 1940	70-75	—	55-60	100-110	65-70	25-30	25-30	70-75	7-10	—	10MM
50-52-62-72-60s-75 1940	70-75	—	55-60	130-140	65-70	25-30	25-30	—	7-10	—	10MM
90 1940	70-75	—	55-60	100-110	65-70	25-30	25-30	—	7-10	—	10MM
All 1941	70-75	—	50-60	130-140	65-70	25-30	25-30	—	—	—	—
All 1942	70-75	—	50-60	140-150	65-70	25-30	25-30	—	—	—	—
All 1946	70-75	—	60-65	130-140	Std. 65-70 Hyd. 70-75	25-30	25-30	—	7-10	—	10MM
CHEVROLET											
All 1939	75-80	—	*40-45	*100-110	*35-40	—	—	—	25-30	—	14MM
									12-15	—	10MM
All 1940-1946	75-80	—	*40-45	*100-110	50-65	—	—	—	12-15	—	10MM
CHRYSLER DESOTO DODGE PLYMOUTH											
All 1939-1948	52-57n 7/16 85-90n 1/2 65-70s (plain) 65-71 s (cupped)		45-50∅ 50-75‡	75-80n 80-85s	—	15-20	15-20	25-30	30-32	—	14MM
FORD											
All All	50-60	35-40	35-40	75-80	65-70	—	—	—	24-28	20-24	—
HUDSON											
6 Cyl. Before 1940	45	45	52	92	—	—	—	—	27.5	—	14MM
8 Cyl. Before 1940	54	54	52	92	—	—	—	—	28.5	—	14MM
6 Cyl. 1940-1941	40-45	—	40-45	55-75	40-50	15-20	20-30	15-20	25-30	—	14MM
8 Cyl. 1940-1941	45-50	—	40-45	55-75	40-50	15-20	20-30	15-20	25-30	—	14MM
	6 Cyl.-40	—	40	75	45	15	20	20	28	—	—
All 1942-1946	8 Cyl.-50	—	40	75	45	15	20	20	28	—	—
LINCOLN											
All All	45-50	35-40	—	—	—	—	—	—	28-32	24-28	—
LINCOLN ZEPHYR											
All All	—	35-40	—	—	—	—	—	—	28-32	24-28	—
MERCURY											
All All	50-60	35-40	35-40	75-80	65-70	—	—	—	28-32	24-28	—

(Continued on page 50)

For key to abbreviations see page 50

YEAR	CYLINDER HEADS		Engine Bearings		Fly Wheel To Crankshaft	MANIFOLDS			SPARK PLUGS		
	Cast Iron	Aluminum	Con. Rod Bear. Bolts	Main Bearing Caps		Intake	Exhaust	Water	Cast Iron Heads	Aluminum Heads	Size
NASH											
10-20-60.....All	64	—	56	70	101	—	25	—	—	—	—
40.....1941	60	—	30	70	56	—	25	—	—	—	—
80.....All	70	—	56	73	131	—	25	—	—	—	—
46-40 "L" Head 1942-1946	57-60	—	27-30	66-70	52-56	—	—	—	25-30	—	14MM
46-60 Over-Head Valve.....1942-1946	65-70	—	52-56	66-70	96-100	—	—	—	25-30	—	14MM
OLDSMOBILE											
F, G and L..... 1939	63-70	—	32-35	x137-144	39-42	11-12	11-12	23-26	28-35	—	14MM
60-70-80.....1940	60-70	—	50-55	z140	40-45	11-14	22-26	22-26	28-35	—	14MM
6 and 8 Cyl.....1941-1946	60-70	—	50-55	†100	55-60 Hydra.-60	11-14	22-26	22-26	28-35	—	14MM
PACKARD											
6 and 8 Cyl....Before 1942	61	—	60	83	—	—	—	—	—	—	—
Super 8.....Before 1942	61	—	47	68	—	—	—	—	—	—	—
6 and 8 Cyl.....1942-1946	60-62	—	45-46	82-85	65-70	25-30	25-30	—	50 Inch Lbs.		
Super 8.....1942-1946	60-62	—	56-58	82-85	65-70	25-30	25-30	—	50 Inch Lbs.		
PLYMOUTH											
See Chrysler											
PONTIAC											
All.....Before 1946	60	—	45	85	6 Cyl.-105 8 Cyl.- 70	—	—	—	—	—	—
All.....1946	60	—	45	85	100	—	—	—	—	—	—
STUDEBAKER											
Champion.....Before 1942	50-55	—	25-27	92	—	—	—	—	33-42	—	18MM
Pres. & Comm. Before 1942	83	—	54	92	—	—	—	—	33-42	—	18MM
Champion..... M5, M15, &..... M15A Trucks.. 1942-1946	46-50	—	28-32	88-95	—	—	—	—	—	—	—
President..... M16 Truck..... 1942-1946	77-83	—	40-44	88-95	—	—	—	—	—	—	—
WILLYS											
CJ-2A 1945-1946	65-75 (Screws) 60-65 (Studs)		50-55	65-70	36-40	31-35	31-35	20-25	—	—	—

ABBREVIATIONS; n=Nuts s=Screws x Front and Rear—Intermediate—118-122. z Front and Rear—Intermediate—120. ∅=⅜ in. Con. rod nuts ‡=7/16 in. Con. rod nuts * Threads Oiled. †Front and Intermediate—Rear 140. Rockerarm Shaft Bolts—Buick 30-35—Chevrolet 25-30—Nash 15-20. Torque requirements are given in both foot pounds and inch pounds—one foot pound is the same as twelve inch pounds.

Automotive equipment is only as good as the operator

Strictly adhere to MANUFACTURER'S SPECIFICATIONS

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MOTOR MAGAZINE

SERVICE AND LEADERSHIP IN CANADA

FEATURED in this issue

Mr. Mechanic:

MOTOR MAGAZINE is your magazine. Read it every month for information, entertainment and profit.

Over 15,500 every month, from coast to coast.

PASS THIS ISSUE ALONG TO THE FOLLOWING MEN →

IGNITION AND IGNITION TIMING

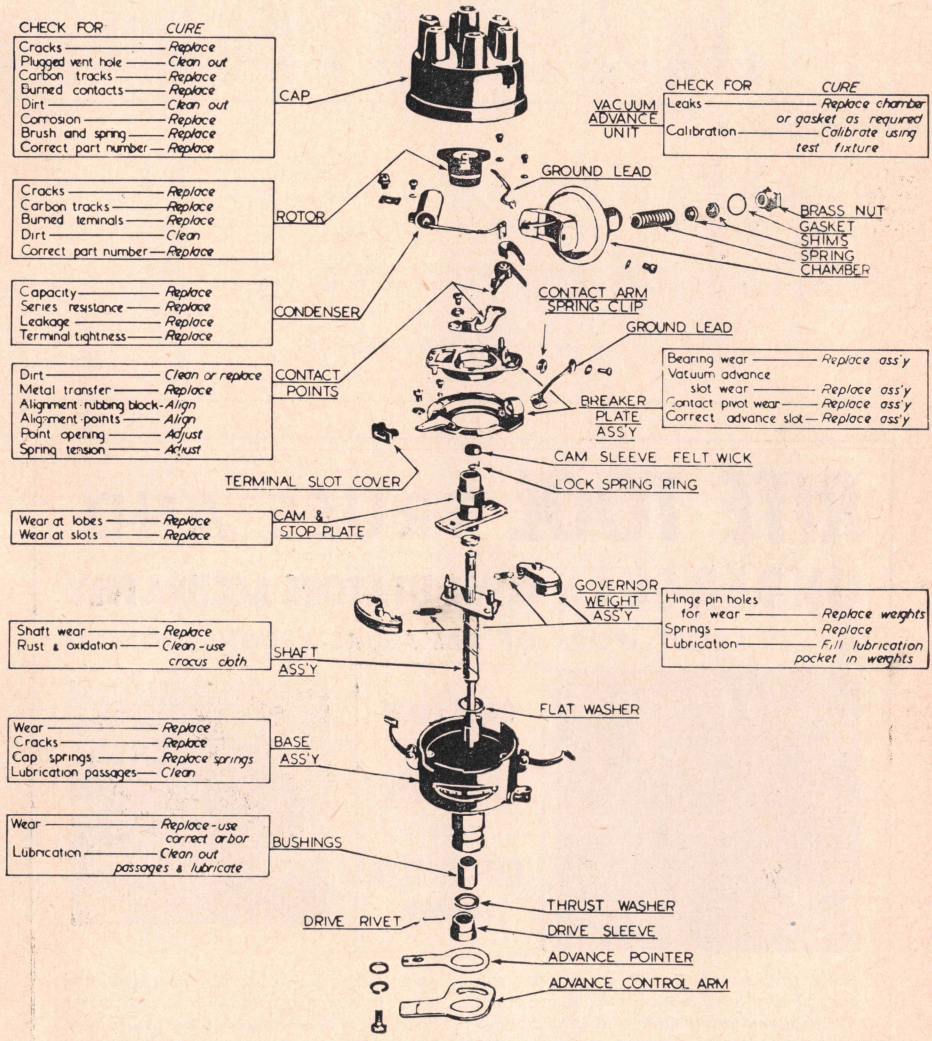
Make and Model	Year	Ignition Unit—Make	Deg. Adv.—Automatic (R.P.M.)	Max. Vacuum Advance Crankshaft Degrees	Distributor Cam Dwell Angle	Set Breaker Gap (Minimum-Maximum)	Breaker Spring Tension (Ozs.) (Min.-Max.)	Timing—Deg. B. or A. TDC	Coil—Amp Draw Engine Stopped	Coil—Amp. Draw Engine Running	Spark Plug—Thread Size (mm)	Spark Plugs—Make and Type (original equipment)	Spark Plug Gap
AUSTIN (English)													
A.40	'48	L	—	—	—	.012	—	—	—	—	14	Cha NA8D	.017-.018
BUICK													
44 Special	'39	DR	13	6½	—	.015	—	4B	4.5	2.5	14	AC-46	.025
46 Century	'39	DR	13	5½	—	.015	—	6B	4.5	2.5	14	AC-46	.025
48 Roadmaster	'39	DR	13	5½	—	.015	—	6B	4.5	2.5	14	AC-46	.025
49 Limited	'39	DR	13	5½	—	.015	—	6B	4.5	2.5	14	AC-46	.025
44-00 & 45-00	'40	DR	13	5.5	—	.015	—	4B	4.5	2.5	14	AC-46	.023
47 Roadmaster	'40	DR	13	5.5	—	.015	—	6B	4.5	2.5	14	AC-46	.023
Spec. 40; Super 50	'41	DR	13	5-6	—	.015	—	4B	4.5	2.5	10	AC-104	.025
Series 60, 70, 90	'41	DR	13	5-6	—	.015	—	6B	4.5	2.5	10	AC-104	.025
Series 44	'42	DR	13	5-6	—	.015	—	4B	4.5	2.5	14	AC-46	.025
Series 46	'42	DR	13	5-6	—	.015	—	6B	4.5	2.5	14	AC-46	.025
Series 50	'46	DR	22 26/3000	10-12	31	.015	—	4B	4.5	2.5	14	AC-48	.025
Series 70	'46	DR	22 26/3000	10-12	31	.015	—	6B	4.5	2.5	14	AC-48	.025
Series 40	'47	DR	22-26/3000	10-12	31	.015-.017	19-23	4B	4.5	2.5	14	AC-48	.025
Series 50	'47	DR	22-26/3000	10 12	31	.015-.017	19-23	6B	4.5	2.5	14	AC-48	.025
Series 70	'47	DR	22 26/3000	10-12	31	.015-.017	19-23	6B	4.5	2.5	14	AC-48	.025
Series 40, 50, 70	'48	(Not distributed in Canada)											
CADILLAC													
V-8 61, 60S	'39	DR	12	0	—	.0125	—	5B	4.4	2.2	10	AC-104	.025
V-8 75	'39	DR	12	0	—	.0125	—	5B	4.4	2.2	10	AC-104	.025
V-16 90	'39	DR	12	0	—	.0125	—	6B	4.4	2.2	10	AC-104	.030
V-8 62	'40	DR	12	10	—	.0125	—	5B	4.4	2.2	10	AC-104	.025
V-8 60S, V-8 75	'40	DR	12	10	—	.0125	—	5B	4.4	2.2	10	AC-104	.025
All series	'41	DR	12	8-10	—	.0125	—	5B	4.4	2.2	10	AC-104	.025
All Series	'42	DR	21-24	18	—	.0125	—	5B	4.4	2.2	10	AC-104	.025
V Eight	'46	DR	24	18	31	.0150	—	5B	4.4	2.2	10	AC-104	.030
V-8	'47	DR	24/4000	18	31†	.0125-.0175	19-23	5B	4.4	2.2	10	AC-104	.025-.030
V-8	'48	(Not distributed in Canada)											
CHEVROLET													
Six	'39	DR	25	8	—	.018	—	5B	4.8	2.5	14	AC-46	.040
Six	'40	DR	18.5	8	—	.018	—	5B	4.8	2.5	14	AC-44	.040
Six	'41	DR	18½	8	—	.018	—	5B	4.8	2.5	14	AC-44	.040
Six	'42	DR	18½	8	—	.018	—	5B	4.8	2.5	14	AC-44	.040
Six	'46	DR	36	20	39	.018	—	5B	4.5	2.5	10	AC-M8	.040
Six	'47	DR	32.5-39.5	20	39	.018	17-21	5B	4.5	2.5	10	AC-M8	.040
Six	'48	DR	32.5-39.5	20	34	.018	17-21	5B	4.5	2.5	10	AC-M8	.040
CHRYSLER													
Six C-22	'39	AL	12	8	—	.020	—	TDC	5.0	2.0	14	Cha-J8*	.025
De Luxe 8	'39	AL	12	9	—	.017	—	TDC	5.0	2.0	14	AL-A7‡	.025
Imperial Custom	'39	AL	12	7	—	.017	—	3B	5.0	2.0	14	AL-A7‡	.025
Six C-25	'40	AL	12	8	—	.020	—	TDC	5.5	2.25	14	AL-A7	.025
De Luxe 8 C-26	'40	AL	12	9	—	.017	—	TDC	5.5	2.25	14	AL-A7	.025
Imp. Cus. C-27	'40	AL	12	7	—	.017	—	3B	5.5	2.25	14	AL-A7	.025
Royal 6 C-28	'41	AL	12	8	—	.020	—	TDC	5.0	2.25	14	AL-A7	.025
New Yorker 8 C-30	'41	AL	12	7-9	—	.017	—	TDC	5.0	2.25	14	AL-A7	.025

(Continued on page 54)

For key to abbreviations see page 74

SEE MOTOR MAGAZINE FOR LATEST TECHNICAL INFORMATION
. . . THE MOST COMPLETE MECHANICAL SERVICE AVAILABLE IN CANADA

Visual Inspection Chart
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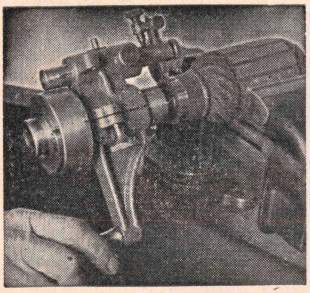
IGNITION AND IGNITION TIMING

Make and Model	Year	Ignition Unit—Make	Deg. Adv.—Automatic (R.P.M.)	Max. Vacuum Advance Crankshaft Degrees	Distributor Cam Dwell Angle	Set Breaker Gap (Minimum-Maximum)	Breaker Spring Tension (Ozs.) (Min.-Max.)	Timing—Deg. B. or A. TDC	Coil—Amp Draw Engine Stopped	Coil—Amp. Draw Engine Running	Spark Plug—Thread Size (mm)	Spark Plugs—Make and Type (original equipment)	Spark Plug Gap
CHRYSLER—Continued													
Crown Cus. C-33	'41	AL	12	5-7	—	.017	—	.004B	5.0	2.25	14	AL-A7	.025
Royal 6 C-34	'42	AL	26	20	—	.020	—	2A	5.0	2.25	14	AL-1-7	.025
New Yorker 8 C-36	'42	AL	24	18	—	.018	—	5A	5.0	2.25	14	AL-1-7	.025
Crown Cus. C-37	'42	AL	12	5-7	—	.018	—	5.0	5.0	2.25	14	AL-A7	.025
C-38W, C-38S	'46	AL	26	20f	34½-38	.020	—	2A	5.0	2.25	14	AL-A5	.025
Six, C-38W, C-38S	'47	AL	11-13/1525	8-10c	34½-38	.020-.024	17-20	2A	5.0	2.3	14	AL-A5	.025
Eight, C-39, C-40	'47	AL	11-13/1750	7-9e	27	.018	18-20	2A	5.0	2.3	14	AL-A5	.025
Six C38W, C33S	'48	AL	11-13/1525	8-10c	34½-38	.020-.024	17-20	2A	5.0	2.3	14	AL-A5	.025
Eight C39, C40	'43	AL	11-13/1750	7-9e	27	.018	18-20	2A	5.0	2.3	14	AL-A5	.025

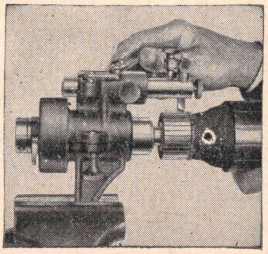
For key to abbreviations see page 74

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With this amazing little tool you can save hours and dollars by doing your own commutator truing and undercutting on a starter or generator overhaul. No other equipment, such as a lathe is required. RITE TOOL turns out accurate work, because it is a precision tool, and turns it out fast. Materials and workmanship of the highest grade assure long life for this sturdy unit.

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★ *Turn to page 88 for more information*

IGNITION AND IGNITION TIMING

Make and Model	Year	Ignition Unit—Make	Deg. Adv.—Automatic (R.P.M.)	Max. Vacuum Advance Crankshaft Degrees	Distributor Cam Dwell Angle	Set Breaker Gap (Minimum-Maximum)	Breaker Spring Tension (Ozs.) Min.-Max.)	Timing—Deg. B. or A. TDC	Coil—Amp Draw Engine Stopped	Coil—Amp. Draw Engine Running	Spark Plug—Thread Size (mm)	Spark Plugs—Make and Type (original equipment)	Spark Plug Gap
CROSLEY													
Four	'48	AL	24/2000	—	46	.020	17-20	12B	5	2	14	AL-A7-A	.025
DE SOTO													
Six S-6	'39	AL	12	8	—	.020	—	2A	5.0	2.0	14	Cha-a	.025
Six S-7	'40	AL	12	8	—	.020	—	2B	5.5	2.25	14	AL-A7	.025
Six S-8	'41	AL	12	6-8	—	.020	—	TDC	5.0	2.25	14	AL-A7	.025
Six S-10	'42	AL	24	14	—	.020	—	TDC	5.0	2.25	14	AL-A7	.025
S-11	'46	AL	24	14f	34½-38	.020	—	TDC	5.0	2.25	14	AL-A5	.025
S-11	'47	AL	10-12/1400	5-7f	34½-38	.020-.024	17-20	TDC	5.0	2.25	14	AL-A5	.025
S-11	'48	AL	10-12/1400	5-7f	34½-38	.020-.024	17-20	TDC	5.0	2.25	14	AL-A5	.025
DODGE													
De Luxe Six D-12	'39	AL	13	11	—	.020	—	3B	5.0	2.0	14	Cha-J8	.025
Standard Six D-13	'39	AL	13	11	—	.020	—	3B	5.0	2.0	14	Cha-J8	.025
Big 6 D-11	'39	AL	12	11	—	.020	—	TDC	5.0	2.0	14	Cha-J8	.025
Six D-15	'40	AL	12	8	—	.020	—	TDC	5.5	2.25	14	AL-A7	.025
De Luxe 6 D-16	'40	AL	12	8	—	.020	—	TDC	5.5	2.25	14	AL-A7	.025
Big 6 D-14	'40	AL	12	8	—	.020	—	TDC	5.5	2.25	14	AL-A7	.025
Kingsway 6 D-20	'41	AL	12	7-9	—	.020	—	TDC	5.0	2.25	14	AL-A7	.025
De Luxe 6 D-21	'41	AL	12	7-9	—	.020	—	TDC	5.0	2.25	14	AL-A7	.025
Luxury Liner D-19	'41	AL	12	7-9	—	.020	—	TDC	5.0	2.25	14	AL-A7	.025
De Luxe D-23	'42	AL	12	7-9	—	.020	—	TDC	5.0	2.25	14	AL-A7	.025
Custom D-22	'42	AL	22	14	—	.020	—	TDC	5.0	2.25	14	AL-A7	.025
D-25	'46	AL	20	22f	34½-38	.020	—	TDC	5.0	2.25	14	AL-A5	.025
D-24	'46	AL	20	22f	34½-38	.020	—	TDC	5.0	2.25	14	AL-A5	.025
D-25	'47	AL	10-12/1400	5-7f	34½-38	.020-.024	17-20	TDC	5.0	2.3	14	AL-A5	.025
D-24	'47	AL	10-12/1400	5-7f	34½-38	.020-.024	17-20	TDC	5.0	2.3	14	AL-A5	.025
D-25	'48	AL	10-12/1400	5-7f	34½-38	.020-.024	17-20	TDC	5.0	2.3	14	AL-A5	.025
D-24	'48	AL	10-12/1400	5-7f	34½-38	.020-.024	17-20	TDC	5.0	2.3	14	AL-A5	.025
FORD													
V-8 85	'39	FM	20	—	—	.014	—	4B	—	—	14	Cha-H10	.025
V-8 85	'40	FM	8	—	—	.014	—	4B	4.5	—	14	Cha-H10	.025
V-8 85	'41	FM	8	—	—	.014	—	4B	5.0	2.8	14	Cha-H10	.025
V-8 85	'42	FM	8	—	—	.014	—	4B	5.0	2.8	14	Cha-H10	.025
De Luxe	'46	FM	26	—	—	.014	—	4B	—	—	14	Cha-H10	.025
Super De Luxe	'46	FM	26	—	—	.014	—	4B	—	—	14	Cha-H10	.025
De L. & Super De L.	'47	FM	26	0	36	.014-.016	20-24	4B	5.0	2.8	14	Cha-H10	.025
De L. & Super De L.	'48	FM	26	0	36	.014-.016	20-24	4B	5.0	2.8	14	Cha-H10	.025
FRAZER													
F-47	'47	AL	20/3400	15	38	.020-.024	17-20	TDC	5.0n	3.0	14	Cha & AL	.032
F-47-47C-485-486	'48	AL	20/3400	15	38	.020	17-20	TDC-E	5n	3	14	AL-A5	.032

(Continued on page 59)

For key to abbreviations see page 74

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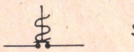
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Parts and Service Division
SARNIA ONTARIO

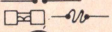
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AUTO-LITE
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★ *Turn to page 88 for more information*

ELECTRICAL SYMBOLS

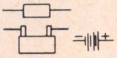

SOLENOID SWITCH


FUSE


LT SWITCH (CONN. ON BACK)


CONDENSER

SNAP SPLICE CONNECTION


BATTERY


POSITIVE

NEGATIVE


CONTACTS

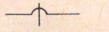

CAR AMMETER

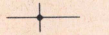

VOLTMETER


POTENTIOMETER


SLIDE WIRE RESISTOR


CARBON PILE RESISTOR


CROSSED WIRES (NO CONN.)


CONNECTED WIRES


GROUND



GROUND


RADIO ANTENNA


DISTRIBUTOR BREAKER POINTS



VOLTMETER FOR TESTING



AMMETER FOR TESTING


RESISTANCE NON-INDUCTIVE


RESISTANCE INDUCTIVE


RESISTANCE WITH IRON CORE


ELECTRO-MAGNET

TC TWO-CHARGE REGULATOR

VR VIBRATING REGULATOR


THIRD BRUSH GENERATOR


TWO BRUSH GENERATOR


SINGLE POLE SWITCH


DOUBLE POLE SWITCH


ELECTRON


PROTON


METER MOVEMENT


AMMETER SHUNT


SPRING CLIP CONNECTION



VACUUM GAUGE



PRESSURE GAUGE



TACHOMETER



SPEEDOMETER


PUSH BUTTON SWITCH


SPARK PLUG

A-ARM.	ARMATURE
B-BAT.	BATTERY
CB	CIRCUIT BREAKER
CONN.	CONNECTION
DIST.	DISTRIBUTOR
F	FIELD
GA.	GAUGE
G-GEN.	GENERATOR
G-GD.	GROUND
HD. LT.	HEAD LIGHT
IGN.	IGNITION
LT.	LIGHT
N	NEGATIVE
Ω	OHM
P	POSITIVE - PRESSURE
PRIM.	PRIMARY
REG.	REGULATOR
R	RESISTANCE
SEC.	SECONDARY
SS	SOLENOID SWITCH
ST.M.	STARTING MOTOR
ST.	STOPLIGHT
SW.	SWITCH
T	TELL-TALE LIGHT
VAC.	VACUUM

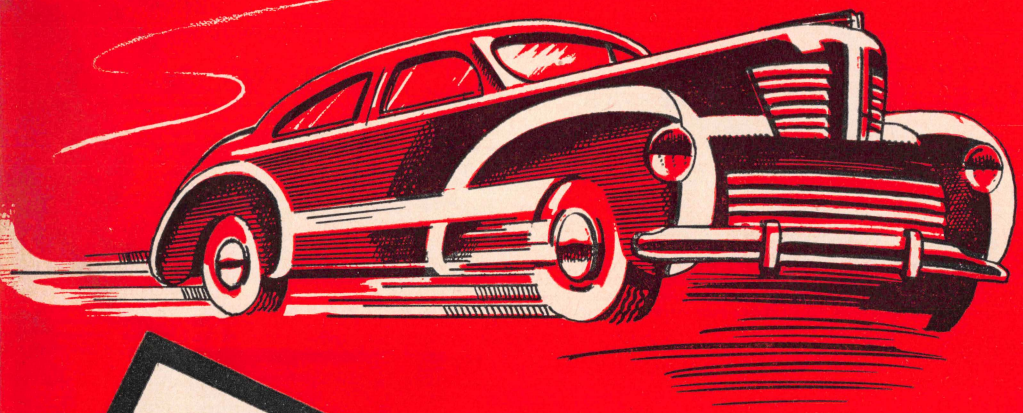
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IGNITION AND IGNITION TIMING

Make and Model	Year	Ignition Unit—Make	Deg. Adv.—Automatic (R.P.M.)	Max. Vacuum Advance Crankshaft Degrees	Distributor Cam Dwell Angle	Set Breaker Gap (Minimum-Maximum)	Breaker Spring Tension (Ozs.) (Min.-Max.)	Timing—Deg. B. or A. TDC	Coil—Amp Draw Engine Stopped	Coil—Amp. Draw Engine Running	Spark Plug—Thread Size (mm)	Spark Plugs—Make and Type (original equipment)	Spark Plug Gap
GRAHAM													
Six-96	'39	DR	9	5	—	018	—	TDC	4.0	2.0	14	Cha-H10	.025
Six-97	'39	DR	8	5	—	.018	—	4½A	4.0	2.0	14	Cha-H10	.025
Six-107	'40	DR	8	5	—	.018	—	4½A	4.0	2.0	15	Cha-H10	.025
Six-108	'40	DR	9	5	—	.018	—	TDC	4.0	2.0	14	Cha-H10	.025
HUDSON													
Six-93	'39	AL	14	—	—	.020	—	TDC	4.5	2.5	14	Cha-J8	.032
Six-91	'39	AL	14	—	—	.020	—	TDC	4.5	2.5	14	Cha-J8	.032
Six-S2	'39	AL	14	—	—	.020	—	TDC	4.5	2.5	14	Cha-J8	.032
Eight-95	'39	AL	17½	0	—	.017	—	TDC	4.5	2.5	14	Cha-J8	.032
Eight-97	'39	AL	17½	0	—	.017	—	TDC	4.5	2.5	14	Cha-J8	.032
Six-90	'39	AL	14	—	—	.020	—	2½B	4.5	2.5	14	Cha-J8	.032
Six-98	'39	AL	14	—	—	.020	—	TDC	4.5	2.5	14	Cha-J8	.032
Six-41	'40	AL	14	8.5	—	.020	—	TDC	4.5	2.5	14	Cha-J8	.032

(Continued on page 61)

For key to abbreviations see page 74

STARTING MOTOR "Trouble-Shooting" CHART

STARTING MOTOR TROUBLES

- **Mechanical Troubles** — Worn Bearings; Shaft Bent; Commutator Burnt; Loose Pole Piece; Broken Bendix; Armature Off Centre → All Indicated by Excessive Current Draw and Slow Cranking or Complete Failure to Crank and Excessive Noise
- **Electrical Troubles**
  - Brush Rigging → Pigtails; Brushes Not Contacting → Brushes Too Short; Poor Spring Pressure; Dirty or Burned Commutator → All Indicated by Low Current or No Current and Failure to Crank. If Only Partial Open Occurs the Current Draw will be Low and Cranking Slow.
  - **OPEN CIRCUIT**
    - Armature → Intense Blue Spark at Brush and Flatted Commutator with Slow Cranking
    - Fields → No Current; No Cranking
  - **GROUND OR SHORT CIRCUIT**
    - Fields → Excess Current; Slow Cranking
    - Armature → Excess Current; Burnt Insulation; Slow Cranking
    - Commutator → Excessive Current; No Cranking
    - Brush Rigging → Main Terminal; Brush Holders; Pigtails and Connectors → Indicated by Excessive Current and No Cranking or Slow Cranking

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CANADA'S FAVORITE SPARK PLUG

no other approaches it in replacement sales

CHAMPION SPARK PLUG CO. OF CANADA LTD.

★ *Turn to page 88 for more information*

IGNITION AND IGNITION TIMING

Make and Model	Year	Ignition Unit—Make	Deg. Adv.—Automatic (R.P.M.)	Max. Vacuum Advance Crankshaft Degrees	Distributor Cam Dwell Angle	Set Breaker Gap (Minimum-Maximum)	Breaker Spring Tension (Ozs.) (Min.-Max.)	Timing—Deg. B. or A. TDC	Coil—Amp Draw Engine Stopped	Coil—Amp. Draw Engine Running	Spark Plug—Thread Size (mm)	Spark Plugs—Make and Type (original equipment)	Spark Plug Gap
HUDSON—Continued													
Six-43	'40	AL	14	8.5	—	.020	—	TDC	4.5	2.5	14	Cha-J8	.032
Six-48	'40	AL	14	8.5	—	.020	—	TDC	4.5	2.5	14	Cha-J8	.032
Eight-44	'40	AL	17.5	0	—	.017	—	TDC	4.5	2.5	14	Cha-J8	.032
Eight-47	'40	AL	17.5	0	—	.017	—	TDC	4.5	2.5	14	Cha-J8	.032
Six-40	'40	AL	14	8.5	—	.020	—	TDC	4.5	2.5	14	Cha-J8	.032
Six	'41	AL	11¾	6.8-8.5	—	.020	—	½B	4.5	2.5	14	Cha-J9	.032
Eight	'41	AL	17½	0	—	.017	—	TDC	4.5	2.5	14	Cha-J9	.032
Sixes	'42	AL	11¾	6.8-8.5	—	.020	—	½B	4.5	2.5	14	Cha-J9	.032
Eights	'42	AL	17½	0	—	.017	—	TDC	4.5	2.5	14	Cha-J9	.032
Six-51, 52	'46	AL	23	15	34	.020	—	½B	4.5	2.5	14	Cha-J9	.032
Eight-53, 54	'46	AL	35	15	30½	.017	—	TDC	4.5	2.5	14	Cha-J9	.032
Six-1 1, 172	'47	AL	23	15	34	.020	18m	½B	4.5	2.5	14	Cha-J9	.032
Eight-173, 174	'47	AL	35	15	30½	.017	18m	TDC	4.5	2.5	14	Cha-J9	.032
Series 481	'48	AL	24/4000	17	38	.020	17-20	TDC	4.5	2.5	14	Cha-J7	.032-.045
Series 482	'48	AL	24/4000	17	38	.020	17-20	TDC	4.5	2.5	14	Cha-J7	.032-.045
Series 483	'48	AL	35/34000	17	27	.017	17-20	TDC	4.5	2.5	14	Cha-J7	.032-.045
Series 484	'48	AL	35/34000	17	27	.017	17-20	TDC	4.5	2.5	14	Cha-J7	.032-.045
HUPMOBILE													
6-922E	'39	AL	7	—	—	.020	—	7B	5.0	2.0	18	Cha-7	.0290
8-925H	'39	AL	6.5	8	—	.017	—	7B	5.0	2.0	18	Cha-7	.0290
KAISER													
K-100	'47	AL	20/3400	15	38	.020-.024	17-20	TDC	5.0n	3.0	14	AL or Cha	.032
K-100-101-481-482	'48	AL	20/3400	15	38	.020	17-20	TDC-E	5n	3	14	AL-A5	.032
LA SALLE													
39-50	'39	DR	12	0	—	.0125	—	5B	4.4	2.2	10	AC-104	.025
40-50 and 40-52	'40	DR	12	10	—	.0125	—	5B	4.4	2.2	10	AC-104	.025
LINCOLN													
Lincoln & Linc. Cont.	'41	O	10	—	—	.014	—	4B	4.2	3.2	14	Cha-H10	.028
Lincoln & Linc. Cont.	'47	O	23/3300	0	36	.014-.016	20-24	4B	7.0	5.0	14	Cha-H10	.028
Linco n & Linc. Cont.	'48	O	23/3300	0	36	.014-.016	20-24	4B	7.0	5.0	14	Cha-H10	.028
MERCURY													
Mercury	'39	FM	20	—	—	.014	—	4B	—	—	14	Cha-H10	025
Mercury	'40	FM	8	—	—	.014	—	4B	4.5	—	14	Cha-H10	.025
Mercury	'41	FM	8	—	—	.014	—	4B	5.0	2.8	14	Cha-H10	.025
Mercury	'42	FM	8	—	—	.014	—	4B	5.0	2.8	14	Cha-H10	.025
114 & 114X	'46	FM	26	—	—	.014	—	4B	—	—	14	Cha-H10	.025
118	'46	FM	26	—	—	.014	—	4B	—	—	14	Cha-H10	.025
114, 114X, 118	'47	FM	26	0	36	.014-.016	20-24	4B	5.0	2.8	14	Cha-H10	.025
114, 114X & 118	'48	FM	26	0	36	.014-.016	20-24	4B	5.0	2.8	14	Cha-H10	.025
MONARCH													
Monarch	'46	FM	26	—	—	.014	—	4B	—	—	14	Cha-H10	.025
Monarch	'47	FM	26	0	36	.014-.016	20-24	4B	5.0	2.8	14	Cha-H10	.025
Monarch	'48	FM	26	0	36	.014-.016	20-24	4B	5.0	2.8	14	Cha-H10	.025

(Continued on page 64)

For key to abbreviations see page 74

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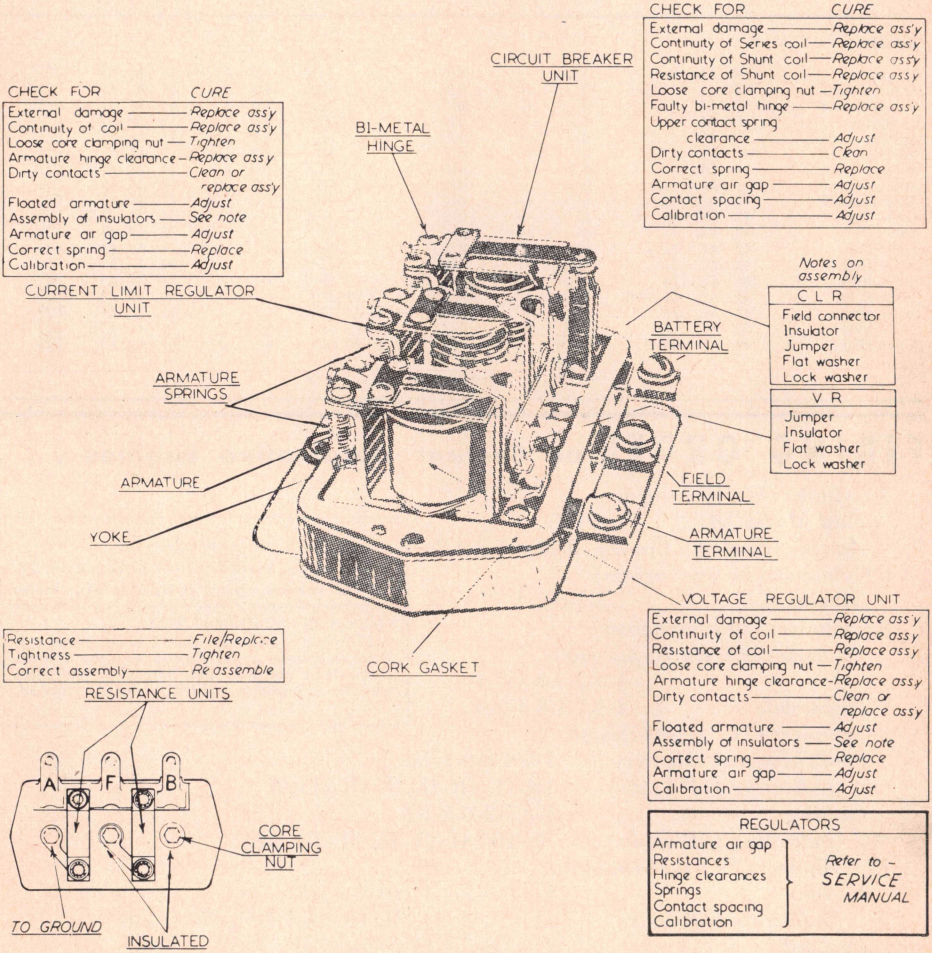
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Visual Repair Chart
REGULATORS



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IGNITION AND IGNITION TIMING

Make and Model	Year	Ignition Unit—Make	Deg. Adv.—Automatic (R.P.M.)	Max. Vacuum Advance Crankshaft Degrees	Distributor Cam Dwell Angle	Set Breaker Gap (Minimum-Maximum)	Breaker Spring Tension (Ozs.) (Min.-Max.)	Timing—Deg. B. or A. TDC	Coil—Amp Draw Engine Stopped	Coil—Amp. Draw Engine Running	Spark Plug—Thread Size (mm)	Spark Plugs—Make and Type (original equipment)	Spark Plug Gap
NASH													
Lafayette	'39	AL	5	5½	—	.020	—	TDC	4.0	2.5	18	AL-B9	.025
Ambassador 6	'39	AL	11½	0	—	.020	—	4B	4.0	2.5	14	AC-45	025
Ambassador 8	'39	AL	12	0	—	.017	—	9B	4.0	2.5	14	AC-45	.025
Lafayette	'40	AL	5	6.5	—	.020	—	TDC	4.0	2.5	18	AL-B7	.025
Ambassador 6	'40	AL	11.5	0	—	.020	—	6B	4.0	2.0	14	AC-45	.025
Ambassador 8	'40	AL	12	0	—	.017	—	9B	4.0	2.0	14	AC-45	.025
Ambassador 600	'41	DR	10	8.5	—	.018-.024	—	TDC	5.0	2.0	14	AL-AN7	.025
Ambassador 6	'41	AL	11.5	0	—	.020	—	6B	5.0	2.0	14	AC-45	.025
Ambassador 8	'41	AL	12	0	—	.017	—	9B	5.0	2.0	14	AC-45	.025
4240—"6"	'42	DR	18	17	—	.010	—	TDC	—	—	14	AL-AN7	.025
4260—"6"	'42	AL	9	6	—	.020	—	4B	—	—	14	AC-45	.025
4280—"8"	'42	AL	12½	6	—	.017	—	7B	—	—	14	AC-45	.925
Series 4640	'46	AL	21	17	—	.020	—	TDC	—	—	14	AL-A5	.025
Series 4660	'46	AL	24	12	—	.020	—	4B	—	—	14	AL-A5	.025
Series 4740	'47	AL	21/2800	17	—	.020	17-20	TDC	—	—	14	AL-A5	.025
Series 4760	'47	AL	24	12	—	.020	17-20	TDC	—	—	14	AC-44	0.25
Series 4840	'48	AL	Da	Mv	35	.020	17-20	fd	6	2	14	AL-AN7	.025
Series 4860	'48	AL	Daa	Mvv	38	.020	17-20	fd	6	2	14	AC-45	.025

For key to abbreviations see page 74

FIRING ORDER *of Current Automotive Engines . . .*

4 Cylinder: (*In line engines*)
Ford Model "A" 1-2-4-3
Austin, (English) Crosley, Willys 1-3-4-2

6 Cylinder: (*In line engines*)
All makes 1-5-3-6-2-4

8 Cylinder: (*In line engines*)
All makes (Except Hupmobile) 1-6-2-5-8-3-7-4
Hupmobile 1-4-7-3-8-5-2-6

8 Cylinder: ("*V*" *type engines*)
Ford, Monarch, Mercury 1-5-4-8-6-3-7-2
(*indicating L-R banks*) 1R-1L-4R-4L-2L-3R-3L-2R
Cadillac 1-8-7-3-6-5-4-2
(*indicating L-R banks*) 1L-4RL4L-2L-3R-3L-2R-1R

12 Cylinder: ("*V*" *type engines*)
Lincoln 1-4-9-8-5-2-11-10-3-6-7-12
(*indicating L-R banks*) 1L-2R-5L-4R-3L-1R-6L-5R-2L-3R-4L-6R
Packard 1-4-9-8-5-2-11-10-3-6-7-12

Cylinder Identification

All "in line" engines—No. 1 is front cylinder.

"V8" engines—No. 1 is right front cylinder (viewed from the driver's seat). No. 8 is rear cylinder on the left-hand bank.

12 cylinder engines—No. 1 is the front cylinder (left-hand bank, viewed from the driver's seat). Odd numbers are left bank cylinders while even numbers right-hand bank cylinders.

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IGNITION AND IGNITION TIMING

Make and Model	Year	Ignition Unit—Make	Deg. Adv.—Automatic (R.P.M.)	Max. Vacuum Advance Crankshaft Degrees	Distributor Cam Dwell Angle	Set Breaker Gap (Minimum-Maximum)	Breaker Spring Tension (Ozs.) (Min.-Max.)	Timing—Deg. B. or A. TDC	Coil—Amp Draw Engine Stopped	Coil—Amp. Draw Engine Running	Spark Plug—Thread Size (mm)	Spark Plugs—Make and Type (original equipment)	Spark Plug Gap
OLDSMOBILE													
Six	'39	DR	14	10	—	.018	—	TDC	4.5	2.0	14	AC-45	.040
35-00 & 36-00	'40	DR	14	10	—	.020	—	TDC	4.5	2.0	14	AC-45	.040
Six	'41	DR	14	10	—	.018-.024	—	TDC	4.5	2.0	14	AC-44	.040
Eight	'41	DR	15	7.5	—	.0125	—	2B	4.5	2.0	14	AC-44	.030
Six	'42	DR	14	10	—	.018-.024	—	TDC	4.5	2.0	14	AC-44	.040
Eight	'42	DR	15	7.5	—	.0125	—	2B	4.5	2.0	14	AC-44	.030
Six	'46	DR	22	12	35	.020	—	TDC	4.5	2.0	14	AC-48	.040
Eight	'46	DR	22	12	31	.015	—	2B	4.5	2.0	14	AC-48	.030
Six	'47	DR	20-24/3200	16†	35	.018-.024	17-21	TDC	4.5	2.0	14	AC-44-45	.040
Eight	'47	DR	20-24/3200	12†	31	.0125-.0175	19-23	2B	4.5	2.0	14	AC-44-45	.030
Six	'48	DR	20-24/3200	16†	35	.018-.024	17-21	TDC	4.5	2.0	14	AC-44-45	.040
Eight	'48	DR	20-24/3200	12†	31	.0125-.0175	19-23	2B	4.5	2.0	14	AC-44-45	.030

(Continued on page 67)

For key to abbreviations see page 74



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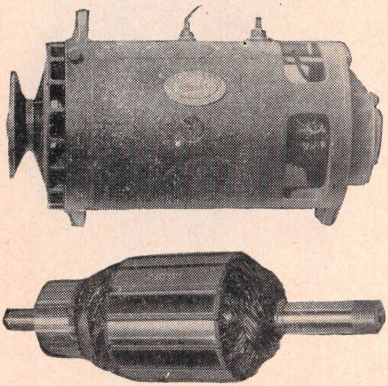
IGNITION AND IGNITION TIMING

Make and Model	Year	Ignition Unit—Make	Deg. Adv.—Automatic (R.P.M.)	Max. Vacuum Advance Crankshaft Degrees	Distributor Cam Dwell Angle	Set Breaker Gap (Minimum-Maximum)	Breaker Spring Tension (Ozs.) (Min.-Max.)	Timing—Deg. B. or A. TDC	Coil—Amp Draw Engine Stopped	Coil—Amp. Draw Engine Running	Spark Plug—Thread Size (mm)	Spark Plugs—Make and Type (original equipment)	Spark Plug Gap
PACKARD													
Six	'39	AL	8¾	8½	—	.018	—	6B	2½	½	10	Va-K	.025
Eight	'39	AL	8¾	7	—	.017	—	8B	2½	½	10	Va-K	.025
Super 8	'39	AL	10½	6½	—	.017	—	7B	2½	½	10	Va-K	.025
Twelve	'39	AL	8	0	—	.020	—	6B	2½	½	10	Va-K	.025
Six	'40	DR	8.75	0	—	.020	—	6B	2½	½	10	Va-Ks	.025
Eight	'40	AL	11.5	0	—	.017	—	8B	2½	½	10	Va-Ks	.025
Super 8	'40	AL	11.5	6.5	—	.017	—	5B	2½	½	10	Va-Ks	.025
110-6	'41	AL	9.5	6.5-8.5	—	.020	—	6B	5	2.75	10	Va-Ks	.025
110-160-180-8	'41	AL	11.5	4.5-6.5	—	.017	—	5B	5	2.4	10	Va-Ks	.025
120	'41	AL	11.5	5-7	—	.017	—	7B	5	2.4	10	Va-Ks	.025
Super 8	'41	AL	11.5	5-7	—	.017	—	5B	5	2.4	10	Va-Ks	.025
"6"—2000	'42	b	9.5	6.5-8.5	—	.018	—	4B	5	2.75	10	Va-KK	.025
"8"—2001	'42	AL	11.5	5-7	—	.017	—	5B	5	2.4	10	Va-KK	.025
"Super 8"—2003, 6	'42	AL	11.5	5-7	—	.017	—	4B	5	2.4	10	Va-KK	.025
2100	'46	AL	—	—	—	.020	—	4B	5.0	2.75	10	††	.025-.030
2101 & 2111	'46	AL	—	—	—	.015	—	5B	5.0	2.4	10	††	.025-.030
2103 & 2126	'46	AL	—	—	—	.015	—	4B	5.0	2.4	10	††	.025-.030

For key to abbreviations see page 74

(Continued on page 69)

allanson



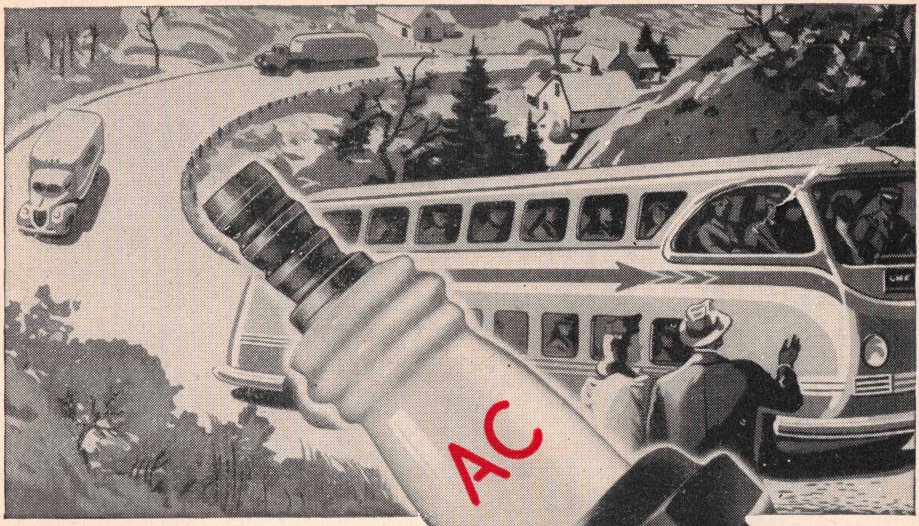
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IGNITION AND IGNITION TIMING

Make and Model	Year	Ignition Unit—Make	Deg. Adv.—Automatic (R.P.M.)	Max. Vacuum Advance Crankshaft Degrees	Distributor Cam Dwell Angle	Set Breaker Gap (Minimum-Maximum)	Breaker Spring Tension (Ozs.) (Min.-Max.)	Timing—Deg. B. or A. TDC	Coil—Amp Draw Engine Stopped	Coil—Amp. Draw Engine Running	Spark Plug—Thread Size (mm)	Spark Plugs—Make and Type (original equipment)	Spark Plug Gap
PACKARD—Continued													
2100-2130	'47	b	(b)	7.5	38	.018-.022	19-23	4B	5	2.75	10	††	.028
2101, 2111	'47	AL	10.75	6.0	27	.0125-.0175	19-23	5B	5	2.4	10	††a	.028
2103, 2106, 2126	'47	AL	11.5	5.5	27	.0125-.0175	19-23	4B	5	2.4	10	††a	.028
2201, 2211	'48	b	—	—	—	.0125-.0175	19-23	6B	5	2.4	10	††a	.025-.030
2202, 2232	'48	b	—	—	—	.0125-.0175	19-23	6B	5	2.4	10	††a	.025-.030
2206, 2233	'48	AL	—	—	—	.0125-.0175	19-23	6B	5	2.4	10	††a	.025-.030
PLYMOUTH													
Six P-7	'39	AL	11	10	—	.020	—	2B	5.0	2.0	14	Cha-J8	.025
De Luxe 6 P-8	'39	AL	11	10	—	.020	—	2B	5.0	2.0	14	Cha-J8	.025
Six P-9	'40	AL	12	12	—	.020	—	TDC	5.5	2.25	14	AL-A7	.025
De Luxe 6 P-10	'40	AL	12	8	—	.020	—	TDC	5.5	2.25	14	AL-A7	.025
Roadking P-11	'41	AL	12	6-8	—	.020	—	TDC	5.5	2.25	14	AL-A7	.025
De Luxe 6 P-12	'41	AL	11	9-11	—	.020	—	TDC	5.5	2.25	14	AL-A7	.025
De Luxe P-14	'42	AL	22	16	—	.020	—	TDC	5.5	2.25	14	AL-A7	.025
P-15	'46	AL	20	22f	34½-38	.020	—	TDC	5.0	2.25	14	AL-A5	.025
P-15	'47	AL	11-13/1750	9-11f	34½-38	.020-.024	17-20	TDC	5	2.25	14	AL-A5	.025
P15	'48	AL	11-13/1750	9-11f	34½-38	.020-.024	17-20	TDC	5	2.25	14	AL-A5	.025
PONTIAC													
Chieftain	'39	DR	14	7½	—	.018	—	6B	4.8	2.5	14	AC-45	.025
Arrow	'39	DR	25	8	—	.018	—	5B	4.8	2.5	14	AC-46	.040
Special 25-00	'40	DR	14¼	7.5	—	.020	—	6B	4.5	2.5	14	AC-45	.025
Arrow	'40	DR	18.5	8.0	—	.018	—	5B	4.5	2.5	14	AC-44	.040
Fleet. & Torpedo 6	'41	DR	14¼	7.5	—	.018-.024	—	4B	3.5	2.0	14	AC-45	.025
Sixes	'42	DR	14¼	7.5	—	.018-.024	—	4B	3.5	2.0	14	AC-45	.025
Six	'46	DR	28½	15	37	.020	—	4B	—	1.5	14	AC-45	.025
Eight	'46	DR	28	20	31	.015	—	4B	—	1.8	14	AC-45	.025
Six	'47	DR	28.5/4000	17	37	.020	17-21	4B	4.5	1.8	14	AC-45	.025
Eight	'47	DR	26/4200	18-22	31	.015	19-23	4B	4.5	1.8	14	AC-45	.025
Six	'48	DR	28.5	17	37	.020	17-21	4B	4.5	1.8	14	AC-45	.025
Eight	'48	DR	28	18-22	31	.015	19-23	4B	4.5	1.8	14	AC-45	.025

N.B. Fleetleaders (1941-2-6-7-8) are 20 and 22 Series; Torpedo 6 & 8 (1941-2-6-7-8) are 25 and 27 Series respectively. Streamliner 6 & 8 (1941-2-6-7-8) are 26 and 28 Series respectilvely; Streamliner 6 & 8 (1948) not distributed in Canada.

STUDEBAKER													
Commander 6 (9A)	'39	AL	10	6	—	.020	—	2B	4.5	1.0	18	Cha-8	.025
President 8 (5C)	'39	DR	14½	6	—	.018	—	TDC	4.5	1.0	18	Cha-8	.025
Champion "G"	'39	AL	7	9½	—	.020	—	1B	4.5	1.0	18	Cha-8	.025
Commander 6 (10A)	'40	AL	10	7	—	.020	—	2B	4.5	1.0	18	Cha-8	.025
President 8 (6C)	'40	DR	14.5	6	—	.0125	—	TDC	4.5	1.0	18	Cha-8	.025
Champion 2-G	'40	AL	7	10	—	.020	—	2B	4.5	1.0	18	Cha-8	.025
Commander 6-11A	'41	AL	10	5-7	—	.020	—	2B	4-5	.5-.125	18	Cha-8	.025
President 8-7C	'41	AL	13.5	5-7	—	.020	—	TDC	4.5	.5-.125	18	Cha-8	.025
Champion 6-3G	'41	AL	7	8-10	—	.020	—	2B	4.5	.5-.125	14	Cha-J8	.025
Commander 6-12A	'42	AL	21	12	—	.020	—	2B	4.5	.5-.125	18	Cha-J9	.025
President 8-8C	'42	AL	27	12	—	.020	—	TDC	4.5	.5-.125	14	Cha-J9	.025
Champion 6-4G	'42	AL	14	18	—	.020	—	2B	4.5	.5-.125	14	Cha-J9	.025
Skyway, 5G	'46	AL	14	18	35	.020	—	2B	4.5	.5-.125	14	Cha-J9	.025
Champion-6G	'47	AL	14/2800	18	35	.020	17-20	2B	4.5	1.0	14	Cha-J9	.025
Commander-14A	'47	AL	22/1400	12	35	.020	17-20	2B	4.5	1.0	14	Cha-J9	.025
Champion 7G	'48	AL	14/2800	18	38	.020	17-20	2B	4-5	½-1½	14	Cha-J7/J9 H	
Commander 15A	'48	AL	22/1400	12	38	.020	17-20	2B	4-5	½-1½	14	Cha-J7/J9 H	

(Continued on page 74)

For key to abbreviations see page 74

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MOTOR MAGAZINE

SERVICE AND LEADERSHIP IN CANADA

FEATURED in this issue

Mr. Mechanic:

When you buy reputable merchandise . . . you buy with confidence.

The companies whose names are listed on the following pages, consistently advertised their products in MOTOR MAGAZINE during the past year.

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Barrett Equipment Company
Bean, John
Bear Equipment & Service Limited
Bendix Aviation
Bendix-Eclipse of Canada, Limited
Bennet & Elliott, Limited
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Black & Decker Manufacturing Company Ltd.
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Brantford Coach Body Limited
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Canada Sand Papers Limited
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Canadian Acceptance Corporation, The
Canadian Automotive Electric Association
Canadian Bronze Powder Works Limited
Canadian Fairbanks-Morse Company, Limited The
Canadian General Electric Company Limited
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Canadian Ingersoll-Rand Company Limited
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Canadian Service Data Book
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Canadian S K F
Canadian Speaker Corporation
Canadian Tungsten Parts Co.
Carter Carburetor Corporation
Casite Division, Hastings Limited
Cedar Rapids Engineering Co.
Champion Laboratories
Champion Spark Plug Company of Canada Limited
Chassis Automotive
Chrysler Corporation of Canada, Limited
Commercial Credit Corporation of Canada Ltd.
Cozens Spring Limited
Cumming Perrault Limited
Curran (Canada) Limited

Detroit Surfacing Company
De Vilbiss Manufacturing Company
Dill Manufacturing Company of Canada Ltd.
Doan Manufacturing Corp.
Dominion Chain Company Limited
Dominion of Canada
Dominion Rubber Company, Limited
Dominion Specialty Company
Dominion Twist Drill Limited
Do-Ray Lamp Company
Drew & Company, E. F.

Egan Manufacturing Co., H. B.
Eis Automotive Corporation
Electric Auto-Lite Limited
Electric Heat Control Company, The
Evans Reamer and Machine Company
Exide Batteries of Canada, Limited

F & B Manufacturing Company
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Federal-Mogul Service Limited
Firestone Tire & Rubber Company of Canada Limited
Ford Motor Company of Canada, Limited
Fram Corporation
Fuller Tool Company

Garage Supply Company Limited
Gas Accumulator Company Limited
General Motors Products of Canada Limited
Gelex Limited
Gleason Corporation
Goodrich Rubber Company of Canada Limited
Goodyear Tire & Rubber Company of Canada Limited
Gorries Parts Department
Gould Storage Battery Limited
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Gray-Bonney Tool Company, Limited
Greenfield Corporation, The
Guaranteed Parts Limited
Guelph Spring & Axle Co. Ltd.
Gutta Percha & Rubber Limited

Hall Manufacturing Company
Harnischfeger Corporation, P. & H.
Hastings Limited

★ *Turn to page 88 for more information*

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Heli-Coil Corporation
Herbrand Tools Limited
Hogle & Company, Fred M.
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Hudson Motors of Canada Limited
Hygrade Products Company, Inc.

Independent Pneumatic Tool Company
Industrial Acceptance Corporation Limited
International Harvester Company of Canada, Limited

Jambor Tool & Stamping Company
Jobborn Manufacturing Limited

Kellogg Division, Canadian Ramapo Iron Works Limited
Keyes Supply Company Limited
Kralinator Products Limited
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Laurentian Agencies
Lempco Manufacturing Company
Lincoln Electric Company of Canada, Limited
Lincoln Engineering Company
Lisle Corp.
Lubrication Equipment Company
Lynch Corporation

Magnus Chemicals Limited
Manufacturers Associates Inc.
Maremont Automotive Products Inc.
Marquette Manufacturing Company, Inc.
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McCord Corporation
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McKinnon Columbus Chain Limited
McQuay-Norris Manufacturing Company
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Monarch Battery Manufacturing Company of Canada
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Nasco Products Limited
Nash Motors of Canada Limited
National Automotive Parts Limited
National Cash Register Company of Canada Limited
National Home Monthly
Niehoff & Co., C. E.

Oakite Limited
Ontario Automobile Company Limited

Page-Hersey Tubes Ltd.
Parmaco Products Company Limited
Paulin & Company Limited, H.
P & D Manufacturing Company
Perfect Circle Company Limited
Philco
Plastic Finish Company

Plomb Tool Company
Prest-O-Lite Company, Limited
Purolator Products (Canada) Limited
Pyrene Manufacturing Company

Quaker State Oil Refining Company of Canada Limited

Ramsay Accessories Manufacturing Corporation (of Canada) Limited
Regent Equipment Manufacturing Company Limited
Reo Motor Company of Canada Limited
Riverdale Garage Limited
Roberk Company, The
Rowland Springs
Rover Company Limited, The

Schraders' Son Division, Scovill Manufacturing Company, A.
Seco Sales & Service Limited
Shaler Products
Sherwin-Williams Company of Canada Limited
Shnier & Company, George E.
Simoniz Company, The
Simplex Products Corporation
Skiltools Ltd.
Snap-On Tools of Canada, Ltd.
Standard Chemical Co. Limited
Sterling Automotive Supplies
Sterling Tool Products Company
Stewart-Warner-Alemite Corporation of Canada, Limited
Stratford Limited, Fred
Studebaker Corporation of Canada Limited

Thexton Manufacturing Products Limited
Thompson Products Limited
Toledo Steel Products (Canada) Limited
Toronto Motor Car Limited
Tumbler Laboratories Limited
Tweco Products Company

United States Asbestos Division of Raybestos, Manhattan, Inc.
United Auto Parts

Vaco Products Company
Van Norman Machine Tool Company

Wagner Brake Company Limited
Walker Manufacturing Company
Warburton & Company Limited, W. C.
Wasco Valve Seat Tool Company Limited
Watson & Company Limited, George M.
Weatherhead Company, Limited
Webster Air Equipment Limited
Wiedenhoff Inc., Joseph
Willard Storage Battery Company of Canada Limited
Williams Machinery Company Limited, A. R.
Witco Chemical Company
Wolf & Company Limited, S.
Wood Industries Ltd., Phil.

★ *Turn to page 88 for more information*

IGNITION AND IGNITION TIMING

Make and Model	Year	Ignition Unit—Make	Deg. Adv.—Automatic (R.P.M.)	Max. Vacuum Advance Crankshaft Degrees	Distributor Cam Dwell Angle	Set Breaker Gap (Minimum-Maximum)	Breaker Spring Tension (Ozs.) (Min.-Max.)	Timing—Deg. B. or A. TDC	Coil—Amp Draw Engine Stopped	Coil—Amp. Draw Engine Running	Spark Plug—Thread Size (mm)	Spark Plugs—Make and Type (original equipment)	Spark Plug Gap
WILLYS													
Four-48	'39	AL	9½	8	—	.020	—	5A	4.0	2.5	14	Cha-J8	.025
Overland-39	'39	AL	9½	8	—	.020	—	TDC	4.0	2.5	14	Cha-J8	.025
Willys 440	'40	AL	9.5	11	—	.020	—	TDC	4.0	2.5	14	Cha-J8	.030
Willys Americar	'41	AL	9.5	11	—	.020	—	TDC	5.0	2.5	14	(B)	.030
Willys Americar	'42	AL	—	15	—	.020	—	TDC	5.0	2.5	14	Cha-J9	.030
CJ-2A Universal Jeep	'45	AL	11	0	41	.020	—	TDC(z)	5.0	2.5	14	AL-AN7	.030
CJ-2A Universal Jeep	'47	AL	11	—	41	.020	17-20	TDC	5.0	2.5	14	AL-AN7	.030
CJ-2A	'48	AL	22/3000	0	39	.020± .002	17-20	5B	5	1½-2	14	AL-AN7	.030
4-63, 2WD, 4WD	'48	AL	22/3000	20	51	.020± .022	17-20	5B	5	1½-2	14	AL-AN7	.030
6-63	'48	AL	22/3000	20	38½	.020± .002	17-20	5B	5	1½-2	14	AL-AN7	.030

ABBREVIATIONS

A=After top centre.
a=Cast iron head, J-8; Aluminum head, H-10.
AL=Auto-Lite.
B=Before top centre.
(B)=Auto-Lte, or Champion J-8.
b=Auto-Lite, or Delco Remy.
(b)=Al-9.5°; DR-10°.
c=At 15″HG.
Cha=Champion.
D=Long reach.
Da=400 r.p.m.—4.5°; 940 r.p.m.—8°; 1400 r.p.m.—11°; Dist, speed.
Daa=650 r.p.m. 7°; 1100 r.p.m.-11°; 1350 r.p.m.-14°.
DR=Delco Remy.
e=At 17″HG.
E=Engine idling.
f=At 14″HG.
fd=Timing mark on rim front dampener.
FM=Ford Mallory.
H=.0225-.0275.
L=Lucas.
m=Minmum.
Mv=6⅛″-2°; 9″-4.5°; 12″-6°; 15″-7.5°.
Mvv=11″-3°; 15″-6°.
n=At 6.4 volts.
O=Own.
p=Cast iron head, TDC; aluminum head, 3°A.
TDC=Top dead centre.
Va-K=AC 103-S, or Champion Y-4.
Va-Ks=AC or Champion
Va-KK=AC or Champion.
y=Ar3450 r.p.m.
(z)=72 octance fuel—5°BTDC.
†=Pus or minus 2°.
††=104 AC, or Champion Y4A.
††a=104 AC, or Champion Y4A, or AL P-4.
‡=Al-6 used with aluminum head.
*=H-10 with aluminum head.

BRITISH IMPERIAL & U.S. FLUID MEASURE

MOTOR vehicles imported from the United States rate the capacities of their fuel, lubrication and cooling systems in terms of U.S. liquid measure, while fluid measure in Canada is based on the British imperial gallon. Therefore, the serviceman should know the correct relationship between imperial and U.S. measure.

The ratio of 40 ounces (imperial) to 32 ounces (U.S.) or five to four cannot be applied to the conversion from one measure to the other, because the fluid ounce of U.S. measure is larger than the fluid ounce of imperial measure. Actually one U.S. fluid ounce equals 1.04 imperial fluid ounces.

The imperial gallon (40 x 4—160 ounces) is equivalent to 277.418 cubic inches, while the U.S. gallon (32 x 4—128 ounces) equals 231 cubic inches. Therefore, one imperial gallon equals 1.2 U.S. gallons which gives the established conversion ratio of five imperial gallons to six U.S. gallons. This ratio, of course, also applies to the conversion of quarts and pints, because they are direct equivalent fractions of both gallons.

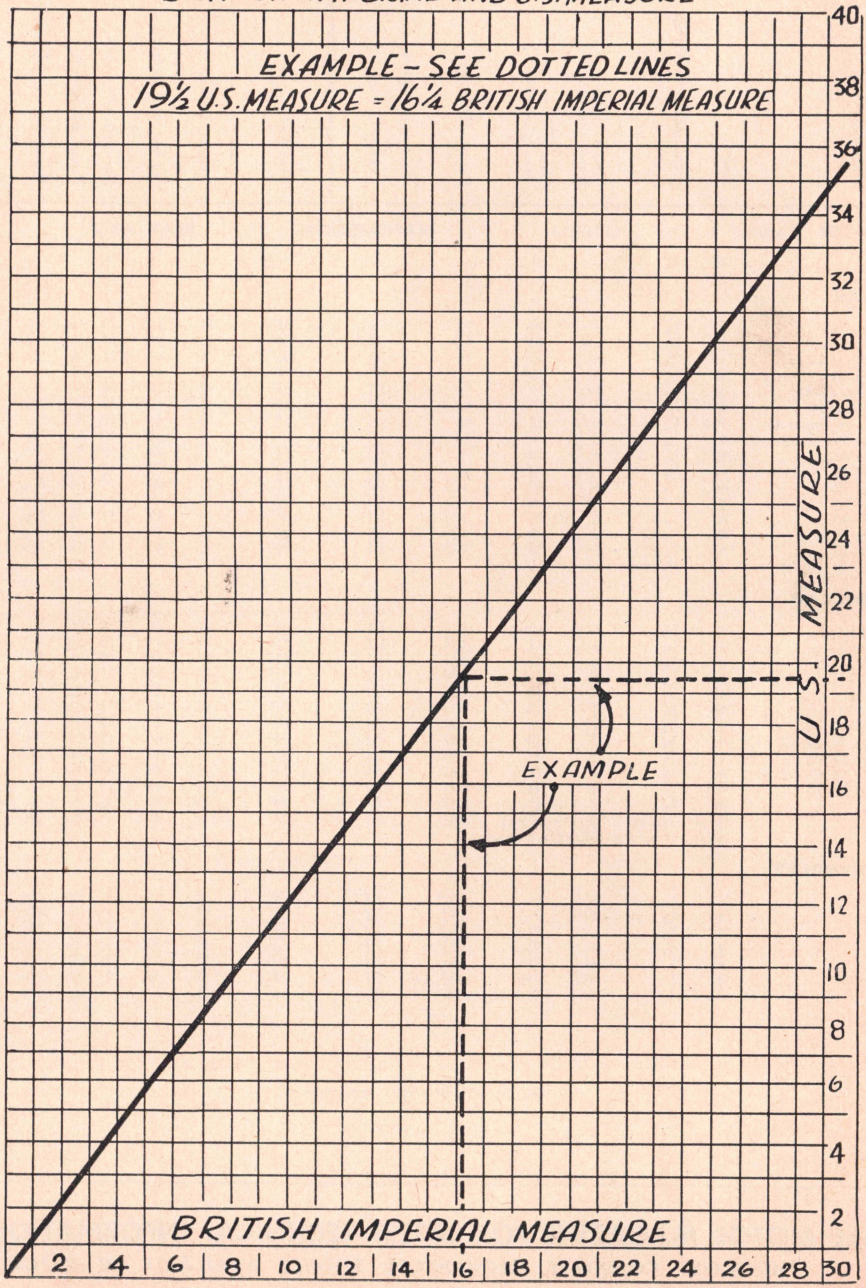
The chart *on opposite page* provides a rapid means of converting British imperial measure to U.S. liquid measure and vice versa.

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CONVERSION CHART – LIQUIDS

BRITISH IMPERIAL AND U.S. MEASURE



CLUTCH, TRANSMISSION AND REAR AXLE

Make and Model	Year	CLUTCH: Pedal Lash at Pedal Pad	CLUTCH: Clutch Facing—Inside Diameter	CLUTCH: Clutch Facing Outside Diameter	CLUTCH: Facing—Thickness	TRANSMISSION: Type of Gearing	REAR AXLE: Rear Axle—Type	REAR AXLE: Type of Gearing	REAR AXLE: No. teeth—Ring Gear	REAR AXLE: No. teeth—Pinion	REAR AXLE: Pinion Adjustment	REAR AXLE: Pinion Bearing Adjustment	REAR AXLE: Pinion Bearing in Sleeve
AUSTIN (English)													
A.40	'48	1/4	—	7 1/4	—	—	3/4F	—	—	—	—	—	—
BUICK													
44 Special	'39	3/4	7	10	1/8	BI	SF	H	44	10	Sh	No	N
46 Century	'39	3/4	6 1/2	10 1/2	1/8	BI	SF	H	39	10	Sh	No	N
48 Roadmaster	'39	3/4	6 1/2	10 1/2	1/8	BI	SF	H	46	11	Sh	No	N
49 Limited	'39	3/4	6 1/2	10 1/2	1/8	BI	SF	H	41	9	Sh	No	N
44-00 & 45-00	'40	3/4	6 3/4	10	1/8	BI	SF	H	44	10	Sh	No	N
47 Roadmaster	'40	3/4	6 1/2	10 1/2	1/8	BI	SF	H	39	10	Sh	No	N
Spec. 44; Super 45	'41	3/4	6 1/2	10	1/8	BI	SF	H	44	10	Sh	No	N
Series 46, 47, 49	'41	3/4	6 1/2	10 1/2	1/8	BI	SF	H	39	10	Sh	No	N
Series 44	'42	3/4	6 1/2	10	1/8	BI	SF	H	44	10	Sh	No	N
Series 46	'42	3/4	6 1/2	10 1/2	1/8	BI	SF	H	39	10	Sh	No	N
Series 50	'46	3/4	6	10	.125	BI	SF	H	44	10	Sh	No	N
Series 70	'46	3/4	6 1/2	10 1/2	.125	BI	SF	H	39	10	Sh	No	N
Series 40	'47	3/4-1	6	10	.125	BI	SF	H	49	11	Sh	No	N
Series 50	'47	3/4-1	6	10	.125	BI	SF	H	49	11	Sh	No	N
Series 70	'47	3/4-1	6 1/2	10 1/2	.125	BI	SF	H	41	10	Sh	No	N
Series 40, 50, 70	'48	(Not distributed in Canada)											
CADILLAC													
V-8 61	'39	7/8	6 1/2	10 1/2	.123	BI	SF	H	48	13	Sh	No	N
V-8 60S	'39	7/8	6 1/2	11	.123	BI	SF	H	43	10	Sh	No	N
V-8 75	'39	7/8	6 1/2	11	.123	BI	SF	H	46	10	Sh	No	N
V-16 90	'39	7/8	7	11 1/2	.123	BI	3/4F	H	51	11	Sh	No	Y
V-8 62	'40	7/8	7	10	.137	BI	SF	H	47	12	Sh	No	N
V-8 60S	'40	7/8	7	10	.137	BI	SF	H	47	12	Sh	No	N
V-8 75	'40	7/8	7	10	.137	BI	SF	H	47	12	Sh	No	N
Series 60, 61, 62, 63	'41	7/8	7	10 1/2	.137	BI	SF	H	49	13	No	No	N
Series 67, 75	'41	7/8	7	11	.137	BI	SF	H	47	11	No	No	N
Series 60, 61, 62, 63	'42	7/8	7	10 1/2	.137	BI	SF	H	49	13	No	No	N
Series 67, 75	'42	7/8	7	11	.137	BI	SF	H	47	11	No	No	N
V 8	'46	7/8	7	z	.137	BI	SF	H	47	11	No	No	N
V-8	'47	7/8-1 1/8	7	z	.137	BI	SF	SH	49†	13†	No	No	N
V-8	'48	(Not distributed in Canada)											
CHEVROLET													
Six	'39	3/4	6 1/4	9	.132	EI	SF	H	38	9	Sh	No	N
Six	'40	3/4	6 1/8	9 1/8	.132	EI	SF	H	37	9	Sh	No	N
Six	'41	3/4	6 1/8	9 1/8	.132	BI	SF	H	37	9	Sh	No	N
Six	'42	3/4	6 1/8	9 1/8	.132	BI	SF	H	37	9	Sh	No	N
Six	'46	1	6 1/8	9 1/8	.135	BI	SF	H	37	9	Sh	No	N
Six 1947	'47	1	6 1/8	9 1/8	.132-.138	BI	SF	H	37	9	Sh	No	N
Six	'48	1	6 1/8	9 1/8	.137-.143	BI	SF	H	37	9	Sh	No	N

For key to abbreviations see page 82

SEE MOTOR MAGAZINE FOR LATEST TECHNICAL INFORMATION
. . . THE MOST COMPLETE MECHANICAL SERVICE AVAILABLE IN CANADA

CLUTCH, TRANSMISSION AND REAR AXLE

Make and Model	Year	Pedal Lash at Pedal Pad	Clutch Facing—Inside Diameter	Clutch Facing Outside Diameter	Facing—Thickness	Type of Gearing	Rear Axle—Type	Type of Gearing	No. teeth—Ring Gear	No. teeth—Pinion	Pinion Adjustment	Pinion Bearing Adjustment	Pinion Bearing in Sleeve?
CHRYSLER			CLUTCH			TRANSMISSION		REAR AXLE					
Six C-22	'39	1	7	10	1/8	BIO*	SF	H	41	10	Sh	Sh	—
De Luxe 8	'39	1	6 1/2	11	1/8	BIO	SF	H	43	11	Sh	Sh	—
Custom Imperial	'39	1	6 1/8	11	1/8	BIO	SF	H	50	11	Sh	Sh	—
Six C-25	'40	1	7	10	1/8	EIO*	SF	H	39	10	SS	Sh	N
De Luxe 8 C-26	'40	1	6 1/2	11	1/8	EIP	SF	H	43	11	SS	Sh	N
Cus. Imp. C-27	'40	1	6	10	1/8	EIO	SF	H	41	9	SS	Sh	N
Royal 6 C-28	'41	1	7	10	.125	BIO	SF	H	39	10	SS	Sh	N
Roy. Wind. C-28W	'41	1	6	9 1/4	.125	ST	SF	H	39	11	SS	Sh	N
N. Yorker 8 C-30	'41	1	6	10	.125	BIO	SF	H	43	11	SS	Sh	N
Crown Imp. C-33	'41	1	6	10	.125	BIO	SF	H	41	9	SS	Sh	N
Royal 6 C-34	'42	1	7	10	.125	BIO	SF	H	39	10	SS	Sh	N
Roy. Wind. C-34W	'42	1	6	9 1/4	.125	ST	SF	H	39	11	SS	Sh	N
New York 8 C-36	'42	1	6	10	.125	BIO	SF	H	43	11	SS	Sh	N
Crown Imp. C-37	'42	1	6	10	.125	ST	SF	H	43	12	SS	Sh	N
Six, C-38S	'46	1	6	9 1/4	.125	EI	SF	H	39	11	SS	Sh	N
Six, C-38W	'46	1	6	9 1/4	.125	ST§	SF	H	39	11	SS	Sh	N
Eight, C-39, C-40	'46	1	6	10	.125	ST§	SF	H	37	11	SS	Sh	N
Six, C-38S	'47	1	6	9 1/4	.125	EI	SF	H	39	11	SS	Sh	N
Six, C-38W	'47	1	6	9 1/4	.125	ST§	SF	H	39	11	SS	Sh	N
Eight, C-39, C-40	'47	1	6	10	.125	ST§	SF	H	37	11	SS	Sh	N
Six, C-38S	'48	1	6	9 1/4	.125	EI	SF	H	39	11	SS	Sh	N
Six, C-38W	'48	1	6	9 1/4	.125	ST§	SF	H	39	11	SS	Sh	N
Eight, C-39, C-40	'48	1	6	10	.125	ST§	SF	H	37	11	SS	Sh	N
CROSLEY													
Four	'48	—	4	6	1/8	—	SF	S	31	6	Sh	Sh	N
DE SOTO													
Six S-6	'39	1	7	10	1/8	BIO*	SF	H	41	10	Sh	Sh	—
Six S-7	'40	1	7	10	1/8	EIO*	SF	H	41	10	SS	Sh	N
De Luxe S-8	'41	1	7	10	1/8	BI	SF	H	41	10	SS	Sh	N
Cus. S-8 (Fluid Dr.)	'41	1	6	9 1/4	1/8	ST§	SF	H	39	11	SS	Sh	N
Cus. S-10 (Fl. Dr.)	'42	1	6	9 1/4	1/8	ST§	SF	H	39	11	SS	Sh	N
S-11	'46	1	6	9 1/4	.125	ST§	SF	H	41	11	SS	Sh	N
S-11	'47	1	6	9 1/4	.125	ST§	SF	H	41	11	SS	Sh	N
S-11	'48	1	6	9 1/4	.125	ST§	SF	H	41	11	SS	Sh	N
DODGE													
De Luxe 6 D-12	'39	1	5 5/8	9 1/4	.133	BI	SF	H	39	10	Sh	Sh	—
Standard 6 D-13	'39	1	5 5/8	9 1/4	.133	BI	SF	H	41	10	Sh	Sh	—
Big 6 D-11	'39	1	6	10	1/8	BI	SF	H	41	10	Sh	Sh	—
Std. 6 D-15	'40	1	6	9 1/4	1/8	EI	SF	H	39	10	SS	Sh	—
De Luxe 6 D-16	'40	1	6	9 1/4	1/8	EI	SF	H	41	10	SS	Sh	—
Big 6 D-14	'40	1	7	10	1/8	EI	SF	H	41	10	SS	Sh	—
Kingsway 6 D-20	'41	1	6	9 1/4	.125	EI	SF	H	41	10	SS	Sh	N
De Luxe 6 D-21	'41	1	6	9 1/4	.125	EI	SF	H	41	10	SS	Sh	N
Lux. Liner D-19	'41	1	7FD	10FD	.125	BI	SF	H	41	10	SS	Sh	N
De Luxe D-23	'42	1	6	9 1/4	.125	EI	SF	H	39	10	SS	Sh	N
Custom D-22	'42	1	6FD	9 1/4FD	.125	EI	SF	H	41	10	SS	Sh	N
D-25	'46	1	6	9 1/4	.125	EI	SF	H	39	10	SS	Sh	N
D-24	'46	1	6	9 1/4	.125	EI	SF	H	39a	10	SS	Sh	N
D-25	'47	1	6	9 1/4	.125	EI	SF	H	39	10	SS	Sh	N

For key to abbreviations see page 82

(Continued on page 78)

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CLUTCH, TRANSMISSION AND REAR AXLE

Make and Model	Year	Pedal Lash at Pedal Pad	Clutch Facing—Inside Diameter	Clutch Facing Outside Diameter	Facing—Thickness	Type of Gearing	Rear Axle—Type	Type of Gearing	No. teeth—Ring Gear	No. teeth—Pinion	Pinion Adjustment	Pinion Bearing Adjustment	Pinion Bearing in Sleeve?
DODGE—Continued		CLUTCH			TRANSMISSION		REAR AXLE						
D-24	'47	1	6	9¼	.125	EI	SF	H	39a	10	SS	Sh	N
D-25	'48	1	6	9¼	.125	EI	SF	H	39	10	SS	Sh	N
D-24	'48	1	6	9¼	.125	EI	SF	H	39a	10	SS	Sh	N
FORD													
V-8 85	'39	¾	5.76	9	.137	BI	¾F	S	34	9	No	No	N
V-8 85	'40	¾	5.76	9	.137	BI	¾F	S	34	9	No	No	N
V-8 85	'41	1	5.76	9	.137	BI	¾F	S	34	9	No	SS	N
V-8 85	'42	1	5.76	9	.137	BI	¾F	S	34	9	No	SS	N
De Luxe	'46	1½	6¾	10	.125	BI	¾F	S	34	9	—	PA	Y
Super De Luxe	'46	1½	6¾	10	.125	BI	¾F	S	34	9	—	PA	Y
De L. & Super De L.	'47	1½	6¾	10	.125	BI	¾F	S	34	9	No	PA	Y
De L. & Super De L.	'48	1½	6¾	10	.125	BI	¾F	S	34	9	No	PA	Y
FRAZER													
F-47	'47	¾-1¼	6	9¼	⅛	HE	Hyp-SF	SB	41	11	Sh	Sh	N
F-47-47C-485-486	'48	¾-1	6	9¼	⅛	CO	SF	HyB	f	ff	Sh	Sh	N
GRAHAM													
Six-96	'39	¾	6	9½	⅛	BIO*	SF	H	47	11	Sh	Sh	N
Six-97	'39	¾	6	9½	⅛	BIO*	SF	H	47	11	Sh	Sh	N
Six-107	'40	¾	6	9½	⅛	BIO*	SF	H	47	11	Sh	Sh	N
Six-108	'40	¾	6	9½	⅛	BIO*	SF	H	47	11	Sh	Sh	N
HUDSON													
Six-93	'39	1½	5⅜	8⅝	13/64	E	SF	S	37	9	Sh	Sh	N
Six-91	'39	1½	5⅜	8⅝	13/64	E	SF	S	37	9	Sh	Sh	N
Six-92	'39	1½	5⅜	8⅝	13/64	E	SF	S	37	9	Sh	Sh	N
Eight-95	'39	1½	6⅜	9¾	13/64	E	SF	S	37	9	Sh	Sh	N
Eight-97	'39	1½	6⅜	9¾	13/64	E	SF	S	37	9	Sh	Sh	N
Six-90	'39	1½	5⅜	8⅝	13/64	E	SF	S	37	9	Sh	Sh	N
Six-98	'39	1½	5⅜	8⅝	13/64	E	SF	S	37	9	Sh	Sh	N
Six-41	'40	1½	5¼	8 11/16	13/64	E	SF	S	37	9	Sh	Sh	N
Six-43	'40	1½	6⅜	9 13/16	13/64	E	SF	S	37	9	Sh	Sh	N
Six-48	'40	1½	5¼	8 11/16	13/64	E	SF	S	41	9	Sh	Sh	N
Eight-44	'40	1½	6⅜	9 13/16	13/64	E	SF	S	37	9	Sh	Sh	N
Eight-47	'40	1½	6⅜	9 13/16	13/64	E	SF	S	37	9	Sh	Sh	N
Six-40	'40	1½	5¼	8 11/16	13/64	E	SF	S	41	9	Sh	Sh	N
Six-10	'41	1½	5¼	8 11/16	13/64	BI	SF	S	41	9	Sh	Sh	N
Six-10*	'41	1½	6⅜	9 13/16	13/64	BIO	SF	S	41	9	Sh	Sh	N
Six-11, 12	'41	1½	5¼	8 11/16	13/64	BI	SF	S	37	9	Sh	Sh	N
Six-11*, 12*, 18	'41	1½	6⅜	9 13/16	13/64	BIO	SF	S	37	9	Sh	Sh	N
Eight	'41	1½	6⅜	9 13/16	13/64	BIO	SF	S	37	9	Sh	Sh	N
"6"—20 Sp.	'42	1½	5¼	8 11/16	13/64	BI	SF	S	41	9	Sh	Sh	N
"6"—Sp.*	'42	1½	6⅜	9 13/16	13/64	BIO	SF	S	41	9	Sh	Sh	N
"6"—20P, 21, 22	'42	1½	5¼	8 11/16	13/64	BI	SF	S	37	9	Sh	Sh	N
"6"—20P*, 21*, 22*	'42	1½	6⅜	9 13/16	13/64	BIO	SF	S	37	9	Sh	Sh	N
"8"—24, 25, 27	'42	1½	6⅜	9 13/16	13/64	BIO	SF	S	37	9	Sh	Sh	N
Six-51, 52	'46	1½	5¼*	9*	13/64	BI	SF	S	37	9	Sh	Sh	N
Eight-53, 54	'46	1½	6⅜	10	13/64	BIO	SF	S	37	9	Sh	Sh	N
Six—171, 172	'47	1½	5¼*	9*	13/64	BI	SF	S	37	9	Sh	Sh	N
Eight—173, 174	'47	1½	6⅜	10	13/64	BIO	SF	S	37	9	Sh	Sh	N

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HUDSON—Continued		CLUTCH				TRANSMISSION		REAR-AXLE					
Series 481	'48	1½	6.375	9.8125	.203	SM	SF	H	41	10	Sh	Sh	N
Series 482	'48	1½	6.375	9.8125	.203	SM	SF	H	41	10	Sh	Sh	N
Series 483	'48	1½	6.375	9.8125	.203	SM	SF	H	41	10	Sh	Sh	N
Series 484	'48	1½	6.375	9.8125	.203	SM	H	41	10	Sh	Sh	Sh	N
HUPMOBILE													
6-922E	'39	¾	6⅛	9⅞	⅛	EI	SF	S	50	11	Sh	Sh	N
8-925H	'39	1¼	6	10	.137	EI	SF	H	50	11	Sh	Sh	N
KAISER													
K-100	'47	3¼-1¼	6	9¼	⅛	HE	Hyp-SF	SB	41	11	Sh	Sh	N
K-100-101-481-482	'48	¾-1	6	9¼	⅛	C	SF	HyB	f	ff	Sh	Sh	N
LA SALLE													
39-50	'39	⅞	6½	10½	.123	BI	SF	H	47	12	Sh	No	N
40-50 and 40-52	'40	⅞	6¾	10	.137	BI	SF	H	47	12	Sh	No	N
LINCOLN													
Linc. & Linc. Cont.	'41	1½	6.75	10	.137	BI	¾F	H	40	9	No	Sh	N
Linc. & Linc. Cont.	'47	1¾	6¾	10	.125	BI	¾F	H	40	9	No	PC	Y
Linc. & Linc. Cont.	'48	1¾	6¾	10	.125	BI	¾F	H	40	9	No	PC	Y
MERCURY													
Mercury	'39	1½	5.76	9	.137	BI	¾F	S	39	11	No	No	N
Mercury	'40	1½	5.76	9	.137	BI	¾F	S	39	11	No	No	N
Mercury	'41	1	6.75	10	.125	BI	¾F	S	39	11	No	SS	N
Mercury	'42	1	6.75	10	.125	BI	¾F	S	39	11	No	SS	N
114 & 114X	'46	1½	6¾	10	.125	BI	¾F	S	34	9	No	PB	Y
118	'46	1½	6¾	10	.125	BI	¾F	S	39	11	No	PB	Y
114, 114X, & 118	'47	1½	6¾	10	.125	BI	¾F	S	34	9	No	PA	Y
114, 114X, & 118	'48	1½	6¾	10	.125	BI	¾F	S	34	9	No	PA	Y
MONARCH													
Monarch	'46	1½	6¾	10	.125	BI	¾F	S	34	9	No	P	Y
Monarch	'47	1½	6¾	10	.125	BI	¾F	S	34	9	No	P	Y
Monarch	'48	1½	6¾	10	.125	BI	¾F	S	34	9	No	P	Y
NASH													
Lafayette	'39	1	5⅝	9¼	⅛	BI	SF	H	41	10	Sh	Sh	N
Ambassador 6	'39	1	6¼	10	⅛	BI	SF	H	41	10	Sh	Sh	N
Ambassador 8	'39	1	6⅛	10	⅛	BI	SF	H	40	9	Sh	Sh	N
Lafayette	'40	1	5⅝	9¼	.133	BI	SF	H	41	10	Sh	Sh	N
Ambassador 6	'40	1	6¼	10	.133	BI	SF	H	41	10	Sh	Sh	N
Ambassador 8	'40	1	6⅛	10	⅛	BI	SF	H	40	9	Sh	Sh	N
Ambassador 600	'41	1	5⅜	8	⅛	BI	SF	H	37	9	Sh	Sh	N
Ambassador 6	'41	1	7	10	.133	BI	SF	H	41	10	Sh	Sh	N
Ambassador 8	'41	1	7	10	.133	BI	SF	H	41	10	Sh	Sh	N

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NASH—Continued			CLUTCH			TRANSMISSION		REAR AXLE					
4240—"6"	'42	1	5 3/8	8	1/8	BI	SF	H	37	9	Sh	Sh	N
4260—"6"	'42	1	7	10	1/8	BI	SF	H	41	10	Sh	Sh	N
4280—"8"	'42	1	7	10	1/8	BI	SF	H	41	10	Sh	Sh	N
Series 4640	'46	1	5 1/4	7 7/8	—	BI	SF	H	37	9	Sh	Sh	N
Series 4660	'46	1	7	10	.133	BI	SF	H	41	10	Sh	Sh	N
Series 4740	'47	1	5 3/8	8	—	BI	SF	H	37	9	Sh	Sh	N
Series 4760	'47	1	7	10	—	BI	SF	H	41	10	Sh	Sh	N
Series 4840	'48	1/2-1 1/4	5 1/4	8	5/32	EI	SF	H	37	9	Sh	Sh3	—
Series 4860	'48	1/2-1 1/4	7	10	5/32	EIO*	SF	H	41	10	Sh	Sh3	—
OLDSMOBILE													
Six	'39	3/4	6	9 1/4	1/8	BI	SF	S	38	9	Sh	No	N
35-00 & 36-00	'40	1	6	9 1/4	1/8	EI	SF	H	43	10	Sh	No	N
Six	'41	1	6	9 1/4	1/8	BI	SF	H	43	10	Sh	No	N
Eight	'41	1	7	10	1/8	BI	SF	H	41	10	Sh	No	N
Six	'42	1	6	9 1/4	1/8	BI	SF	H	43	10	Sh	No	N
Eight	'42	1	7	10	1/8	BI	SF	H	41	10	Sh	No	N
Six	'46	1	6	9 1/4	.125	BI	SF	H	43	10	Sh	No	N
Eight	'46	1	7	10	.125	BI	SF	H	41	10	Sh	No	N
Six	'47	3/4-1	6	9 1/4	.125	BI & HT	SF	H	**	**	Sh	@	—
Eight	'47	3/4-1	7	10	.125	BI & HT	SF	H	**	**	Sh	@	—
Six	'48	3/4-1	6	9 1/4	.125	BI & HT	SF	H	**	**	Sh	@	—
Eight	'48	3/4-1	7	10	.125	BI & HT	SF	H	**	**	Sh	@	—
PACKARD													
Six	'39	1 1/2	6	9 1/2	.125	BI	SF	H	50	11	No	—	N
Eight	'39	1 1/2	6	10	.125	BI	SF	H	48	11	No	—	N
Super 8	'39	1 3/4	6 1/2	11	.125	BR	SF	H	48	11	Sh	Sc	N
Twelve	'39	1	7	12	.137	BR	SF	H	75	17	Sh	Sc	N
Six	'40	1 1/2	6	9 1/2	.125	BI	SF	H	50	11	No	—	N
Eight	'40	1 1/2	6	10	.125	BI	SF	H	48	11	No	—	N
Super 8	'40	1 3/4	6 1/2	11	.125	BI	SF	H	61	13	Sh	Sc	N
110	'41	1 1/2	6	9 1/2	.125	BI	SF	H	43	10	Sh	—	N
120	'41	1 1/2	6	10	.125	BI	SF	H	45	11	Sh	—	N
Super 8	'41	1 3/4	6 1/2	11	.125	BI	SF	H	x	y	Sh	—	N
"6"—2000	'42	1 1/2	6	9 1/2	.125	Sel	SF	H	43	10	Sh	—	N
"8"—2001	'42	1 1/2	6	10	.125	Sel	SF	H	41	10	Sh	—	N
Super "8"—2003, 6	'42	1 3/4	6 5/8	11	.125	Sel	SF	H	47	12	Sh	—	N
2100	'46	1 1/2-2	6	9 1/2	.125	H	SF	HG	43	10	—	—	—
2101 & 2111	'46	1 1/2-2	6	10	.125	H	SF	HG	41	10	—	—	—
2103	'46	1 3/4-2 1/4	6 5/8	11	.125	H	SF	HG	47	12	—	—	—
2126	'46	1 3/4-2 1/4	6 5/8	11	.125	H	SF	HG	45	11	—	—	—
2100	'47	1 1/2-2	6	9 1/2	.125	HE	SF	HG	43	10	.003-.005		N
2101 & 2111	'47	1 1/2-2	6	10	.125	HE	SF	HG	41	10	.003-.005		N
2103, 2106 & 2126	'47	1 3/4-2 1/4	6 5/8	11	.125	HE	SF	HG	47	12	.003-.005		N
2130	'47	1 3/4-2 1/4	6 5/8	11	.125	HE	SF	HG	47	12	.003-.005		N
2201, 2211	'48	1 1/4-1 1/2	6 3/4	10	.125	Sel	SF	HG	39	10	.003-.005		PD
2202, 2232	'48	1 1/4-1 1/2	7	10 1/2	.125	Sel	SF	HG	39	10	.003-.005		PD
2206, 2233	'48	1 1/4-1 1/2	7	11	.125	Sel	SF	HG	47	12	.003-.005		PD

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PLYMOUTH		**CLUTCH**				**TRANSMISSION**		**REAR AXLE**					
Six P-7	'39	1	5⅝	9¼	.133	BR	SF	H	39	10	Sh	Sh	—
De Luxe P-8	'39	1	5⅝	9¼	.133	BR	SF	H	41	10	Sh	Sh	—
Six P-9	'40	1	6	9¼	.125	EI	SF	H	39	10	SS	Sh	—
De Luxe 6 P-10	'40	1	6	9¼	.125	EI	SF	H	41	10	SS	Sh	—
Roadking P-11	'41	1	6	9¼	.125	BI	SF	H	41	10	SS	Sh	N
De Luxe P-12	'41	1	6	9¼	.125	BI	SF	H	41	10	SS	Sh	N
De Luxe P-14	'42	1	6	9¼	.125	EI	SF	H	39	10	SS	Sh	N
P-15	'46	1	6	9¼	.125	EI	SF	H	39	10	SS	Sh	N
P-15	'47	1	6	9¼	.125	EI	SF	H	39	10	SS	Sh	N
P-15	'48	1	6	9¼	.125	EI	SF	H	39	10	SS	Sh	N
PONTIAC													
Chieftain	'39	1¼	6¼	9	⅛	EI	SF	S	38	9	Sh	No	N
Arrow	'39	¾	6¼	9	.132	EI	SF	H	38	9	Sh	No	N
Special 25-00	'40	⅞	5¾	9	⅛	EI	SF	H	43	10	Sh	No	N
Arrow	'40	¾	6⅛	9⅛	132	EI	SF	H	37	9	Sh	No	N
Fleetleader	'41	⅞	6	9⅛	⅛	BI	SF	H	37	9	Sh	No	N
Torpedo 6	'41	⅞	6	9⅛	⅛	BI	SF	H	43	10	Sh	No	N
Fleetleader 6	'42	⅞	6	9⅛	⅛	BI	SF	H	39	10	Sh	No	N
Torpedo 6 & De L.	'42	⅞	6	9⅛	⅛	BI	SF	H	43	10	Sh	No	N
Six	'46	—	6	9½	.125	BI	SF	H	—	—	Sh	No	N
Eight	'46	—	6	9½	.125	BI	SF	H	—	—	Sh	No	N
Six	'47	1	6	9½	.125	SM	SF	H	❖	❖	Sh	@	—
Eight	'47	1	6	9½	.125	SM	SF	H	❖	❖	Sh	@	—
Six	'48	1	6	9½	.125	SM	SF	H	❖	❖	Sh	@	—
Eight	'48	1	6	9½	.125	SM	SF	H	❖	❖	Sh	@	—
STUDEBAKER													
Commander 6 (9A)	'39	1	5⅝	9¼	.137	EI	SF	H	50	11	Sh	Sh	N
President 8 (5C)	'39	1	6	9½	.125	EI	SF	H	50	11	Sh	Sh	N
Champion "G"	'39	1	5⅛	7⅞	.125	EI	SF	H	41	9	Sh	Sh	N
Commander 6 (10A)	'40	1	5⅝	9¼	.137	EI	SF	H	50	11	Sh	Sh	N
President 8 (6C)	'40	1	6	9½	.125	EI	SF	H	50	11	Sh	Sh	N
Champion 2G	'40	1	5⅛	7⅞	.125	EI	SF	H	41	9	Sh	Sh	N
Commander 6-11A	'41	1	6	9¼	⅛	BI	SF	H	50	11	Sh	Sh	N
President 8-7C	'41	1	6	9½	⅛	BI	SF	H	50	11	Sh	Sh	N
Champion 6-3G	'41	1	5⅛	7⅞	⅛	BI	SF	H	41	9	Sh	Sh	N
Commander 6-12A	'42	1	6	9¼	⅛	BI	SF	H	45	11	Sh	Sh	N
President 8-8C	'42	1	6	9½	⅛	BI	SF	H	45	11	Sh	Sh	N
Champion 6-4G	'42	1	5⅛	7⅞	⅛	BI	SF	H	41	10	Sh	Sh	N
Skyway, 5G	'46	1	5⅛	7⅞	⅛	BI	SF	H	41	10	Sh	Sh	N
Champion 6G	'47	1	5⅜	8	⅛	SM	SF	H	41	10	Sh	Sh	N
Commander 14A	'47	1	6	9¼	⅛	SM	SF	H	45	11	Sh	Sh	N
Champion 7G	'48	½-1	5⅜	8	.125	HE	SF	H	41	10	Sh	Sh	N
Commander 15A	'48	½-1	6	9¼	.125	HE	SF	H	45	11	Sh	Sh	N
WILLYS													
Four-48	'39	1	5⅛	7⅞	⅛	EI	SF	S	43	10	Sh	Sh	N
Overland 39	'39	1	5⅛	7⅞	⅛	EI	SF	S	43	10	Sh	Sh	N
Willys 440	'40	1	5⅛	7⅞	⅛	EI	SF	S	43	10	Sh	Sh	N
Willys Americar	'41	¾	5⅛	7⅞	⅛	BI	SF	H	40	9	Sh	Sh	N

N.B. Fleetleaders (1941-2-6-7-8) are 20 and 22 Series; Torpedo 6 & 8 (1941-2-6-7-8) are 25 and 27 Series respectively. Streamliner 6 & 8 (1941-2-6-7-8) are 26 and 28 Series respectively; Streamliner 6 & 8 (1948) not distributed in Canada.

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WILLYS (Continued)			CLUTCH			TRANSMISSION		REAR AXLE					
Willys Americar	'42	3/4	5 1/8	7 7/8	1/8	BI	SF	H	40	9	Sh	Sh	N
CJ-2A Universal Jeep	'45	3/4	5 1/8	8 1/2	.125	I	FF	H	—	—	Sh	Sh	N
CJ-2A Universal Jeep	'47	3/4	5 1/8	8 1/2	.125	I	SF	H	—	—	Sh	Sh	N
CJ-2A	'48	3/4	5 1/8	8 1/2	.132	HE	SF	H	43	8	Y	Y	—
2WD & 4WD	'48	3/4	5 1/8	8 1/2	.132	HE	SF	SB	43	8	Y	Y	—
4 63 & 6 63	'48	3/4	5 1/8	8 1/2	.132	HE	SF	H	∅	8	Y	Y	—

ABBREVIATIONS

∅Model 4 63 VJ-2 has 39 tooth ring gear.

a=Seven passenger sedan, 43 teeth in ring gear.

BI=Constant mesh helical gears with synchronous meshing of) 2nd and 3rd gears. (Ford products not constant mesh gears

BIO=Constant mesh helical gears with synchronous meshing of 2nd and 3rd gears and overdrive.

BIO*=Constant mesh helical gears with synchronous meshing of 2nd and 3rd gears and overdrive. Optional at extra cost.

BR=Constant mesh helical gears with constant meshing of 1st, 2nd and 3rd gears.

C=Conventional.

D=Constant mesh helical gears on forward speeds.

E=Constant mesh helical gears on 2nd.

EI=Constant mesh helical gears on 2nd, with synchronous meshing of 2nd and 3rd gears.

EIO*=Constant mesh helical gears on 2nd, synchronous meshing of 1st, 2nd and 3rd with overdrive. Optional at extra cost.

f=3.73-1, 41; 4.09-1, 45; 4.27-1, 47.

ff=3.73-1, 11; 4.09-1, 11; 4.27-1, 11.

F=Constant mesh helical gears on 3rd.

FF=Full floating.

¾F=Three quarters floating.

G=Constant mesh spur gears on 2nd.

HG=Hypoid gears, final drive.

HT=Hydra-matic drive.

HyB=Hypoid bevel.

Hyp SF=Hypoid, semi-floating.

H=Hypoid.

HE=Helical.

I=Synchronous meshing of 2nd and 3rd gears.

N=No.

O=Overdrive.

P=Herringbone gears on 2nd.

PA=Preload 12-16 inch pounds.

PB=Preload 12-17 inch pounds.

PC=Preload 18-20 pounds.

PD=Preload to 2-2½ foot pounds.

S=Spiral bevel.

SB=Spiral bevel worm-hypoid.

Sc=Screw.

Sel=Selective silent synchronized.

SF=Semi-floating.

SH=Spiral hypoid

Sh=Shim.

Sh³=Shims .003 preload.

SM=Synchro-mesh helical gears.

SS=Shims for axial position; spacer for preloading.

SS-1=Selective sliding gears.

ST=Hydraulically operated 4-speed transmission, helical gears on all speeds. (§Simplimatic)

x=Models 1903, 1906-47; Models 1904, 1907-45; Models 1905, 1908-48.

Y=Yes.

y=Models 1903, 1906-12; Models 1904, 1907-11; Models 1905, 1908-11.

z=Models 60, 61, 62-10½. Model 75-11.

†=Standard equipment 61, 62 and 60S. 75-economy axle. 47 and standard equipment 75 and 75 commercial

*=Series 51, 52 with overdrive, vacumotive drive and Hudson Drive Master-6⅜x10.

**No. Teeth=Oldsmobile (6):

Ring Gear	Pinion	
41	10	3500 series except H.T.
43	10	7600 series except H.T.
40	11	7600 series H.T.
41	12	3500 series H.T.

No. Teeth Oldsmobile (8):

Ring Gear	Pinion	
43	10	78, 98 series except H.T.
40	11	98 series H.T.
41	12	78 series H.T.

❖=No. teeth, ring gear 39 (Series 2000-2200); 41 (Series 2500 2700); 43 (Series 2600, 2800).

❖❖=No. teeth, pinion-10 (series 2,000 2200, 2500, 2700)std.; 10 (series 2600, 2800) std.

@=Controlled by adjustment of pinion flange retaining nut which must be tightened until pre-load friction to turn pinion is 27 to 35 inch pounds.

°=First and reverse, sliding helical gears.

∅=Model 463VJ-2 has 39-tooth ring gear.

SEE MOTOR MAGAZINE FOR LATEST TECHNICAL INFORMATION

. . . THE MOST COMPLETE MECHANICAL SERVICE AVAILABLE IN CANADA

YELLOW SECTION

This section is designed to acquaint you further with the products of advertisers in the 1948 edition. For further particulars on the FREE INFORMATION offered by these advertisers turn to page 88.

1. Additives

(A) Hollingshead Company of Canada, Limited, R. M.

2. Air and Electric Rotary Impact Tools

(A) Canadian Ingersoll-Rand Company Limited

3. Air Compressors and Pneumatic Tools

(A) Canadian Ingersoll-Rand Company Limited
(B) Lynch Corporation, Par Compressor Division

4. Anti-Freeze

(A) Chrysler Corporation of Canada Limited
(B) General Motors Products of Canada, Limited

5. Armatures

(A) Allanson Armature Mfg. Co. Limited
(B) Auto Electric Service Company, Limited
(C) Beattie Auto Electric Limited
(D) Electric Auto-Lite Limited

6. Axle and Drive Shafts

(A) Chrysler Corporation of Canada Limited
(B) Ford Motor Company of Canada, Limited
(C) General Motors Products of Canada, Limited

7. Batteries and Battery Service

(A) Chrysler Corporation of Canada Limited
(B) Electric Auto-Lite Limited
(C) General Motors Products of Canada, Limited

8. Battery and Battery Service Equipment

(A) Goodrich Rubber Company of Canada Limited, The B. F.

9. Battery Cables

(A) Auto Electric Service Company, Limited
(B) Beattie Auto Electric Limited
(C) Canada Wire and Cable Company Limited
(D) Canadian Tungsten Parts Co.
(E) Chrysler Corporation of Canada Limited
(F) General Motors Products of Canada, Limited
(G) Goodrich Rubber Company of Canada Limited, The B. F.
(H) Guaranteed Parts Limited

10. Battery Chargers

(A) Canadian General Electric Co. Ltd.

11. Bearings

(A) Chrysler Corporation of Canada, Limited
(B) General Motors Products of Canada, Limited
(C) Toledo Steel Products (Canada) Ltd.

12. Body and Fender Tools

(A) Seco Sales and Service Limited

13. Bolts, Bushings and Shackles

(A) Sealed Power Corporation of Canada, Limited
(B) General Motors Products of Canada, Limited
(C) Toledo Steel Products (Canada) Ltd.

14. Box Wrenches

(A) Seco Sales and Service Limited

15. Brake Fluid (hydraulic)

(A) Canadian Johns-Manville Co. Limited
(B) Canadian Tungsten Parts Co.
(C) Chrysler Corporation of Canada Limited
(D) General Motors Products of Canada, Limited
(E) Hollingshead Company of Canada Limited, R. M.
(F) Pyrene Manufacturing Company of Canada Limited
(G) Stratford Limited, Fred
(H) Wagner Brake Company Limited

16. Brake Lining

(A) Autobestos Manufacturing Co. Limited
(B) Canadian Johns-Manville Co. Limited
(C) Chrysler Corporation of Canada Limited
(D) Federal Belting & Asbestos Co. Limited, The
(E) General Motors Products of Canada, Limited
(F) Toronto Brake & Steering Ltd.

17. Brake Lining Rivets

(A) Autobestos Manufacturing Co. Limited
(B) Canadian Johns-Manville Co. Limited
(C) Federal Belting & Asbestos Co. Limited, The
(D) General Motors Products of Canada, Limited

18. Brake Parts and Cables

(A) Canadian Tungsten Parts Co.
(B) Chrysler Corporation of Canada Limited
(C) General Motors Products of Canada, Limited
(D) Stratford Limited, Fred
(E) Toronto Brake & Steering Ltd.
(F) Wagner Brake Company Limited

19. Brakes (air)

(A) Bendix-Eclipse of Canada Limited

20. Brakes (hydraulic)

(A) Bendix-Eclipse of Canada Limited

21. Brakes (mechanical)

(A) Bendix-Eclipse of Canada Limited

★ *Turn to page 88 for more information*

22. Brakes (vacuum)

(A) Bendix-Eclipse of Canada Limited

23. Brake Servicing Equipment

(A) Autobestos Manufacturing Co. Limited
(B) Federal Belting & Asbestos Co. Limited, The

24. Carburetors and Parts, Tools and Testers

(A) Auto Electric Service Company, Limited
(B) Beattie Auto Electric Limited
(C) Bendix-Eclipse of Canada Limited
(D) Canadian Automotive Electric Association
(E) Carter Carburetor Corporation
(F) Ford Motor Company of Canada, Limited

25. Chain Repair Links (tire)

(A) Wickwire Spencer Steel Division, The Colorado Fuel and Iron Corporation

26. Chassis Parts

(A) General Motors Products of Canada, Limited
(B) Sealed Power Corporation of Canada Limited
(C) Stratford Limited, Fred
(D) Toledo Steel Products (Canada) Ltd.

27. Chemicals (anti-rust)

(A) Radiator Specialty Company of Canada, Ltd.

28. Chemicals (automotive)

(A) Auto Electric Service Company, Limited
(B) Beattie Auto Electric Limited
(C) Curran Corporation (Canada) Limited
(D) General Motors Products of Canada, Limited
(E) Goodrich Rubber Company of Canada Limited, The B. F.
(F) Hollingshead Company of Canada Limited, R. M.
(G) Pyrene Manufacturing Company of Canada Limited
(H) Radiator Specialty Company of Canada, Ltd.

29. Cleaners (auto body)

(A) Hollingshead Company of Canada Limited, R. M.

30. Cleaners (auto parts)

(A) Bendix-Eclipse of Canada Limited

31. Clutch Discs and Assemblies

(A) Chrysler Corporation of Canada Limited
(B) General Motors Products of Canada, Limited
(C) Wickwire Spencer Steel Division, The Colorado Fuel and Iron Corporation

32. Clutch Facings and Clutch Plates

(A) Canadian Johns-Manville Co. Limited
(B) Federal Belting & Asbestos Co. Limited, The
(C) General Motors Products of Canada, Limited

33. Clutch Pedal Release Springs

(A) Wickwire Spencer Steel Division, The Colorado Fuel and Iron Corporation

34. Connecting Rods and Bearings

(A) Chrysler Corporation of Canada Limited
(B) Ford Motor Company of Canada, Limited
(C) General Motors Products of Canada, Limited
(D) Thompson Products Ltd.

35. Crankshaft Reconditioning

(A) McQuay-Norris Mfg. Co. of Canada, Ltd.
(B) Sunnen Products Co. Ltd.

36. Cylinder Reconditioning

(A) Burd Piston Ring Co.
(B) Chrysler Corporation of Canada Limited
(C) Dominion Twist Drill Limited
(D) Ford Motor Company of Canada, Limited
(E) McQuay-Norris Mfg. Co. of Canada, Ltd.
(F) Sunnen Products Co. Ltd.
(G) Thexton Mfg. Products Limited

37. Degreasing Chemicals and Equipment

(A) Curran Corporation (Canada) Limited

38. Drills

(A) Dominion Twist Drill Limited
(B) Seco Sales and Service Limited

38x. Drills (electric)

(A) Canadian Ingersoll-Rand Company Limited

39. Electrical Parts

(A) Auto Electric Service Company, Limited
(B) Beattie Auto Electric Limited
(C) Canadian Tungsten Parts Co.
(D) Chrysler Corporation of Canada Limited
(E) Electric Auto-Lite Limited
(F) Guaranteed Parts Limited

40. Engine Mounts

(A) Doan Manufacturing Corp.

41. Fan Belts and Radiator Hose

(A) Chrysler Corporation of Canada Limited
(B) Federal Belting & Asbestos Co. Limited, The
(C) General Motors Products of Canada, Limited
(D) Goodrich Rubber Company of Canada Limited, The B. F.

42. Fender and Body Repair Hammers

(A) Ashton, S. M.

43. Files

(A) Seco Sales and Service Limited

44. Filters (fuel)

(A) Bendix-Eclipse of Canada Limited

45. Filters (oil)

(A) Chrysler Corporation of Canada Limited

46. Fire Extinguishers

(A) Pyrene Manufacturing Company of Canada Limited

47. Fittings, Tools and Testers

(A) Auto Electric Service Company, Limited
(B) Beattie Auto Electric Limited

48. Floor Mats

(A) Doan Manufacturing Corp.
(B) Goodrich Rubber Company of Canada Limited, The B. F.

★ *Turn to page 88 for more information*

49. Fractional Horsepower Belts

(A) Goodrich Rubber Company of Canada Limited, The B. F.

50. Frame Straightening Equipment

(A) Ashton, S. M.
(B) Bear Equipment & Services Limited

51. Fuel Pumps, Parts, Lines and Lubricants

(A) Auto Electric Service Company, Limited
(B) Beattie Auto Electric Limited
(C) Canadian Tungsten Parts Co.
(D) Carter Carburetor Corporation
(E) Radiator Specialty Company of Canada, Ltd

52. Gasket Compounds

(A) Radiator Specialty Company of Canada, Ltd.

53. Gaskets

(A) Canadian Johns-Manville Co. Limited
(B) Chrysler Corporation of Canada Limited

54. Gauges (tire)

(A) Dill Manufacturing Company of Canada Limited, The

55. Gear Pullers

(A) Seco Sales and Service Limited

56. Generators and Parts

(A) Allanson Armature Mfg. Co. Limited
(B) Auto Electric Service Company, Limited
(C) Beattie Auto Electric Limited
(D) Canadian Automotive Electric Association
(E) Electric Auto-Lite Limited

57. Grommets (rubber)

(A) Doan Manufacturing Corp.

58. Hammers

(A) Seco Sales and Service Limited

59. Headlight Service Instruments

(A) Chrysler Corporation of Canada Limited

60. Heater Hose Clamps

(A) Wickwire Spencer Steel Division, The Colorado Fuel and Iron Corporation

61. Heaters (hot water)

(A) Goodrich Rubber Company of Canada Limited, The B. F.

62. Ignition Cable and Wire

(A) Auto Electric Service Company, Limited
(B) Beattie Auto Electric Limited
(C) Canada Wire and Cable Company Limited
(D) Canadian Automotive Electric Association
(E) Canadian Tungsten Parts Co.
(F) Chrysler Corporation of Canada Limited
(G) Electric Auto-Lite Limited
(H) Guaranteed Parts Limited
(I) Thexton Mfg. Products Limited

63. Ignition Parts, Coils and Condensers

(A) Auto Electric Service Company, Limited
(B) Beattie Auto Electric Limited
(C) Canadian Automotive Electric Association
(D) Canadian Tungsten Parts Co.
(E) Electric Auto-Lite Limited
(F) Guaranteed Parts Limited
(G) Thexton Mfg. Products Limited

64. Ignition Timing Instruments

(A) Ashton, S. M.
(B) Auto Electric Service Company, Limited
(C) Beattie Auto Electric Limited
(D) Canadian Automotive Electric Association
(E) Canadian Tungsten Parts Co.
(F) Thompson Products Ltd.

65. Jacks

(A) Federal Belting & Asbestos Co. Limited, The
(B) Midland Foundry & Machine Co. Ltd.

66. King Pins

(A) Chrysler Corporation of Canada Limited

67. Lamps and Lenses

(A) Electric Auto-Lite Limited

68. Lifts (hydraulic)

(A) Midland Foundry & Machine Co. Ltd.

69. Lubricants

(A) Hollingshead Company of Canada Limited, R. M.

70. Lubricants (water pumps)

(A) Radiator Specialty Company of Canada, Ltd.

71. Machine Shop Service

(A) Thompson Products Ltd.

72. Magnetos and Parts

(A) Auto Electric Service Company, Limited
(B) Beattie Auto Electric Limited

73. Motor Hoists (air)

(A) Canadian Ingersoll-Rand Company Limited

74. Motor Rebuilding

(A) Burd Piston Ring Co.
(B) Guaranteed Parts Limited

75. Motor Servicing

(A) Burd Piston Ring Co.
(B) Guaranteed Parts Limited

76. Mufflers

(A) Chrysler Corporation of Canada Limited
(B) General Motors Products of Canada, Limited
(C) Thompson Products Ltd.

77. Packings (automotive)

(A) Federal Belting & Asbestos Co. Limited, The

★ *Turn to page 88 for more information*

78. Paints and Enamels

(A) Auto Electric Service Company, Limited
(B) Beattie Auto Electric Limited
(C) Hollingshead Company of Canada Limited, R. M.

79. Pedal Pads

(A) Doan Manufacturing Corp.

80. Pliers

(A) Seco Sales and Service Limited

81. Piston Pin Fitting

(A) Sunnen Products Co. Ltd.

82. Piston Pins

(A) General Motors Products of Canada, Limited
(B) McQuay-Norris Mfg. Co. of Canada, Ltd.
(C) Sealed Power Corporation of Canada Limited
(D) Thexton Mfg. Products Limited
(E) Toledo Steel Products (Canada) Ltd.

83. Piston Ring Expanders

(A) Cords Piston Ring Co. of Canada Ltd.
(B) McQuay-Norris Mfg. Co. of Canada, Ltd.
(C) Midland Foundry & Machine Co. Ltd.
(D) Perfect Circle Company Limited, The
(E) Thexton Mfg. Products Limited
(F) Wilkening Mfg. Co. (Canada) Ltd.

84. Piston Rings

(A) Burd Piston Ring Co.
(B) Chrysler Corporation of Canada Limited
(C) Cords Piston Ring Co. of Canada Ltd.
(D) General Motors Products of Canada, Limited
(E) McQuay-Norris Mfg. Co. of Canada, Ltd.
(F) Midland Foundry & Machine Co. Ltd.
(G) Perfect Circle Company Limited, The
(H) Sealed Power Corporation of Canada Limited
(I) Wilkening Mfg. Co. (Canada) Ltd.

85. Pistons

(A) Chrysler Corporation of Canada Limited
(B) Ford Motor Company of Canada, Limited
(C) General Motors Products of Canada, Limited
(D) McQuay-Norris Mfg. Co. of Canada, Ltd.
(E) Sealed Power Corporation of Canada Limited
(F) Thompson Products Ltd.
(G) Toledo Steel Products (Canada) Ltd.

86. Polishes

(A) Hollingshead Company of Canada Limited, R. M.
(B) General Motors Products of Canada, Limited

87. Radiators

(A) Chrysler Corporation of Canada Limited
(B) General Motors Products of Canada, Limited
(C) Radiator Specialty Company of Canada, Ltd.

88. Radiator Chemicals

(A) Hollingshead Company of Canada Limited, R. M.
(B) Radiator Specialty Company of Canada, Ltd.

89. Radios (automotive)

(A) Goodrich Rubber Company of Canada Limited, The B. F.

90. Rear Axles

(A) Chrysler Corporation of Canada Limited
(B) General Motors Products of Canada, Limited

91. Regulators (voltage)

(A) Electric Auto-Lite Limited

92. Ridge Reamers

(A) Seco Sales and Service Limited

93. Rim and Tire Tools

(A) Seco Sales and Service

94. Rubber Cements and Preservatives

(A) Hollingshead Company of Canada Limited, R. M.

95. Screwdrivers

(A) Seco Sales and Service Limited

96. Shims (coil spring)

(A) Toronto Brake & Steering Ltd.

97. Shock Absorber Fluids

(A) Hollingshead Company of Canada Limited, R. M.

98. Shock Absorbers and Parts

(A) Auto Electric Service Company, Limited
(B) Beattie Auto Electric Limited
(C) Chrysler Corporation of Canada Limited
(D) Sterling Automotive Supplies
(E) Stratford Limited, Fred
(F) Toronto Brake & Steering Ltd.

99. Shop Equipment

(A) Auto Electric Service Company, Limited
(B) Bear Equipment & Services Limited
(C) Beattie Auto Electric Limited
(D) Federal Belting & Asbestos Co. Limited, The
(E) Ford Motor Company of Canada, Limited
(F) Sunnen Products Co. Ltd.

100. Shop Equipment—Service Tools

(A) Ashton, S. M.
(B) Auto Electric Service Company, Limited
(C) Dominion Twist Drill Limited

101. Sleeves and Assemblies (wet or dry)

(A) Toledo Steel Products (Canada) Ltd.

102. Sockets and Handles

(A) Seco Sales and Service Limited

★ *Turn to page 88 for more information*

103. Spark Plugs

(A) Auto Electric Service Company, Limited
(B) Beattie Auto Electric Limited
(C) Champion Spark Plug Company of Canada Limited
(D) Chrysler Corporation of Canada Limited
(E) Electric Auto-Lite Limited

104. Spark Plug Service Units

(A) Champion Spark Plug Company of Canada Limited

105. Speedometers, Parts, Tools and Service

(A) Auto Electric Service Company, Limited
(B) Beattie Auto Electric Limited
(C) Dominion Twist Drill Limited

106. Springs

(A) Chrysler Corporation of Canada Limited
(B) Toronto Brake & Steering Ltd.

107. Starter Drives and Parts

(A) Bendix-Eclipse of Canada Limited

108. Starter Parts and Service.

(A) Allanson Armature Mfg. Co. Limited
(B) Auto Electric Service Company, Limited
(C) Beattie Auto Electric Service Limited
(D) Electric Auto-Lite Limited
(E) Ford Motor Company of Canada, Limited
(F) Wickwire Spencer Steel Division, The Colorado Fuel and Iron Corporation

109. Starter Springs

(A) Wickwire Spencer Steel Division, The Colorado Fuel and Iron Corporation

110. Testing Units

(A) Ashton, S. M.
(B) Auto Electric Service Company, Limited
(C) Bear Equipment & Services Limited
(D) Beattie Auto Electric Limited

111. Tie Rods and Tie Rod Ends

(A) Chrysler Corporation of Canada Limited
(B) Dominion Twist Drill Limited
(C) General Motors Products of Canada, Limited
(D) Sealed Power Corporation of Canada Limited
(E) Toledo Steel Products (Canada) Ltd.

112. Timing Chains

(A) General Motors Products of Canada, Limited

113. Tire and Tube Repair Materials and Equipment

(A) Goodrich Rubber Company of Canada Limited, The B. F.

114. Tire Chain Adjusters

(A) Wickwire Spencer Steel Division, The Colorado Fuel and Iron Corporation

115. Tires and Tire Accessories

(A) Dill Manufacturing Company of Canada Limited, The
(B) Goodrich Rubber Company of Canada Limited, The B. F.

116. Tire Tools

(A) Seco Sales and Service Limited

117. Tools and Wrenches (air and electric)

(A) Canadian Ingersoll-Rand Company Limited

118. Transmission Gears and Assemblies

(A) Chrysler Corporation of Canada Limited
(B) Ford Motor Company of Canada, Limited

119. Undercarriage Servicing

(A) Bear Equipment & Services Limited

120. Valves and Valve Parts

(A) Chrysler Corporation of Canada Limited
(B) Dill Manufacturing Company of Canada Limited, The
(C) General Motors Products of Canada, Limited
(D) Sealed Power Corporation of Canada Limited
(E) Thompson Products Ltd.
(F) Toledo Steel Products (Canada) Ltd.
(G) Wickwire Spencer Steel Division, The Colorado Fuel and Iron Corporation

121. Valve Timing Instruments

(A) Ford Motor Company of Canada, Limited
(B) Thompson Products Ltd.

122. Vulcanizing Equipment (tires and tubes)

(A) Dill Manufacturing Company of Canada Limited, The

123. Water Pumps and Parts

(A) Chrysler Corporation of Canada Limited
(B) Dominion Twist Drill Limited
(C) General Motors Products of Canada, Limited
(D) Sealed Power Corporation of Canada Limited
(E) Toledo Steel Products (Canada) Ltd.

124. Wheel Alignment Equipment

(A) Ashton, S. M.
(B) Bear Equipment & Services Limited

125. Wheel Pullers

(A) Seco Sales and Service Limited

126. Wheel Suspension Parts

(A) Toledo Steel Products (Canada) Ltd.

127. Windshield Wipers

(A) Auto Electric Service Company, Limited
(B) Beattie Auto Electric Limited

128. Wrenches

(A) Seco Sales and Service Limited

★ *Turn to page 88 for more information*

Send for FREE INFORMATION

from the advertisers in this edition of the Canadian Service Data Book whose products are classified for your convenience in the

YELLOW SECTION

Simply fill out the post card on page 89 and mail it RIGHT AWAY! See how to fill out post card BELOW!

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HOW TO FILL OUT POST CARD

AN EXAMPLE: If you want information from the three advertisers, (A), (F) and (G) in section "28 Chemicals (automotive)"—write those letters after "28" on one of the post cards on the opposite page. If you want *all* the information from *all* the manufacturers in the section make a tick (√) opposite "28" *(See illustration Right)*. Be sure to tell us why you want this information after the word "REMARKS" at bottom of card, for example:

28 AFG

OR

28 √



REMARKS: *Am interested in selling this product!*

TEAR OFF THE POST CARD

Put a one cent stamp on it and *MAIL NOW*

CANADIAN SERVICE DATA BOOK 1948

c/o MOTOR MAGAZINE TORONTO, ONTARIO

Please send me FREE, complete information on products checked.

1	22	43	64	85	106
2	23	44	65	86	107
3	24	45	66	87	108
4	25	46	67	88	109
5	26	47	68	89	110
6	27	48	69	90	111
7	28	49	70	91	112
8	29	50	71	92	113
9	30	51	72	93	114
10	31	52	73	94	115
11	32	53	74	95	116
12	33	54	75	96	117
13	34	55	76	97	118
14	35	56	77	98	119
15	36	57	78	99	120
16	37	58	79	100	121
17	38	59	80	101	122
18	39	60	81	102	123
19	40	61	82	103	124
20	41	62	83	104	125
21	42	63	84	105	126
127		128		129	38x

Remarks.....

Your Name.....

Firm Name.....*Your Position*.....

Street & No......*City*.....*Prov.*.....

CANADIAN SERVICE DATA BOOK 1948

c/o MOTOR MAGAZINE TORONTO, ONTARIO

Please send me FREE, complete information on products checked.

1	22	43	64	85	106
2	23	44	65	86	107
3	24	45	66	87	108
4	25	46	67	88	109
5	26	47	68	89	110
6	27	48	69	90	111
7	28	49	70	91	112
8	29	50	71	92	113
9	30	51	72	93	114
10	31	52	73	94	115
11	32	53	74	95	116
12	33	54	75	96	117
13	34	55	76	97	118
14	35	56	77	98	119
15	36	57	78	99	120
16	37	58	79	100	121
17	38	59	80	101	122
18	39	60	81	102	123
19	40	61	82	103	124
20	41	62	83	104	125
21	42	63	84	105	126
127		128		129	38x

Remarks.....

Your Name.....

Firm Name.....*Your Position*.....

Street & No......*City*.....*Prov.*.....

PLACE
ONE
CENT
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CANADIAN SERVICE DATA BOOK
c/o MOTOR MAGAZINE
73 Richmond Street, West
TORONTO, ONTARIO

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STAMP
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c/o MOTOR MAGAZINE
73 Richmond Street, West
TORONTO, ONTARIO

BATTERY SERVICE

THE BATTERY is part of an electrical system which must be properly adjusted to provide dependable performance. There are many factors which can change the balance of the electrical system sufficiently to result in starting failure or short battery life.

Efficient battery service consists of regular service operations, and the use of especially designed equipment.

Periodic inspection of battery condition will detect electrical trouble before serious difficulty is experienced. Prevention of trouble, and early diagnosis of the cause of trouble and its prompt correction, are most readily achieved through the use of the proper equipment.

A good battery service plan, properly executed, will result in more battery recharges and new battery sales, and in customer satisfaction through uninterrupted service.

BATTERY SERVICE PLAN

	REQUIRED CONDITION	DETERMINATION OF CONDITION		REMEDY
		TEST	WARNING SIGNAL	
BATTERIES IN NEW STOCK	Well Charged	Periodic check of electrolyte gravity	Gravity low —insufficient charging	Maintain full charge with trickle charger or Recharge regularly with series charger
	Fully Charged for Installation in service	Check electrolyte gravity	Gravity low —insufficient charging	Recharge with fast charger or series charger
BATTERIES IN SERVICE	Well Charged	Periodic check of electrolyte (a) gravity (b) level	Gravity low —insufficient charging	Recharge with fast charger or series charger
	Proper electrolyte level		Level low —too much charging (or leakage)	Check capacity with battery tester Repair as required Replace if worn out Check and correct all other parts of the electrical system
	Each part of electrical system operating within manufacurer's specifications	Check electrical sysiem (a) regularly (b) when any electrical trouble occurs	Battery near end of life	Replace the battery
			any part of electrical system in poor condition	Repair or replace inoperative parts

SEE MOTOR MAGAZINE FOR LATEST TECHNICAL INFORMATION
. . . THE MOST COMPLETE MECHANICAL SERVICE AVAILABLE IN CANADA

BATTERY, STARTING MOTOR AND GENERATOR

Make and Model	Year	Battery—Amp. Hr. Capacity	Bench Charging Rate—Finish	Terminal Grounded	Starting Motor—Make	Lock Test—Amp. Draw	Lock Test—Volts	Lock Test—Torque (ft.-lbs.)	Drive Type	Generator—Make	Cutout Relay—Volts to Close	Cutout Relay—Amps. to open	Type Generator Regulation	Maximum Charging Rate—Amps.	Maximum Charging Rate—Volts
AUSTIN (English)		BATTERY			STARTING MOTOR					GENERATOR					
A.40	'48	51*	6	P	L	—	—	—	Man	L	—	—	VR	—	—
BUICK															
44 Special	'39	110	8.0‡	N	DR	525	3.4	12	ORC	DR	6.5	4.0	VR	27.0	8.0
46 Century	'39	110	8.0‡	N	DR	600	3.0	16	ORC	DR	6.5	4.0	VR	27.0	8.0
48 Roadmaster	'39	110	8.0‡	N	DR	600	3.0	16	ORC	DR	6.5	4.0	VR	27.0	8.0
49 Limited	'39	110	8.0‡	N	DR	600	3.0	16	ORC	DR	6.5	4.0	VR	27.0	8.0
44 00 & 45-00	'40	110	—	N	DR	575	3.4	12	ORC	DR	6.5	3.0	VR	30.0	8.0
47 Roadmaster	'40	115	—	N	DR	600	3.0	16	ORC	DR	6.5	3.0	VR	30.0	8.0
Spec. 40; Super 50	'41	120	7.0	N	DR	525	3.37	12	ORC	DR	6.2-6.7	0-4	RC	34.0	8.0
Series 60, 70	'41	120	7.0	N	DR	600	3.0	16	ORC	DR	6.2-6.7	0.4	RC	34.0	8.0
Series 90	'41	120	7.0	N	DR	600	3.0	16	ORC	DR	6.2-6.7	0-4	RC	34.0	8.0
Series 44	'42	120	7.0	N	DR	525	3.37	12	ORC	DR	6.2-6.7	0-4	RC	34.0	8.0
Series 46	'42	120	7.0	N	DR	600	3.0	16	ORC	DR	6.2-6.7	0-4	RC	34.0	8.0
Series 50	'46	100	7.0	N	DR	575	3.4	12	ORC	DR	6.2-6.7	0-4	RC	33.0	8.0
Series 70	'46	120	7.0	N	DR	600	3.0	16	ORC	DR	6.2-6.7	0-4	RC	33.0	8.0
Series 40	'47	100	7.0	N	DR	575	3.4	12	ORC	DR	6.2-6.7	0-4	RC	32-34H	7.2-7.4H
Series 50	'47	100	7.0	N	DR	575	3.4	12	ORC	DR	6.2-6.7	0-4	RC	32-34H	7.2-7.4H
Series 70	'47	120	7.0	N	DR	600	3.0	16	ORC	DR	6.2 6.7	0-4	RC	32-34H	7.2-7.4H
Series 40, 50, 70	'48	(Not distributed in Canada)													
CADILLAC															
V-8 61	'39	112	8.0‡	P	DR	600	3.0	16	ORC	DR	6.4-6.8	4.0	VR	27.0	8.0
V-8 60S	'39	112	8.0‡	P	DR	600	3.0	16	ORC	DR	6.4-6.8	4.0	VR	27.0	8.0
V-8 75	'39	112	8.0‡	P	DR	600	3.0	16	ORC	DR	6.9-7.6	3.0	RC	30.0	8.0
V-16 90	'39	164	10.0‡	P	DR	500	3.0	19	ORC	DR	6.9-7.6	3.0	RC	25.0	8.0
V-8 62	'40	115	—	P	DR	600	3.0	16	ORC	DR	6.2-6.7	3.0	VR	30.0	8.0
V-8 60S	'40	115	—	P	DR	600	3.0	16	ORC	DR	6.2-6.7	3.0	VR	30.0	8.0
V-8 75	'40	115	—	P	DR	600	3.0	16	ORC	DR	6.2-6.7	3.0	RC	30.0	8.0
All Series	'41	115	—	P	DR	600	3.0	16	ORC	DR	6.2-6.7	0-4	RC	32.0	8.0
All Series	'42	115	—	P	DR	600	3.0	16	ORC	DR	6.2-6.7	0-2	RC	35.0	8.0
"V" Eight	'46	115	8.0	N	DR	600	3.0	16	ORC	DR	6.4-6.9	—	RC	35.0	8.0
Eight	'47	115	8.0	N	DR	600	3.0	16	ORC	DR	6.4-6.9	0-4@	RC	34-36	8.0
V-8	'48	(Not distributed in Canada)													
CHEVROLET															
Six	'39	100	7.0‡	N	DR	525	3.4	12	ORC	DR	6.5	4.0	VR	26.0	8.0
Six	'40	97	—	N	DR	525	3.4	12	Bend	DR	6.5	3.0	VR	30.0	8.0
Six	'41	97	—	N	DR	525	3.4	12	ORC	DR	6.2-6.7	0-4	RC	35.0	8.0
Six	'42	97	—	N	DR	525	3.4	12	ORC	DR	6.2-6.7	0-4	RC	35.0	8.0
Six	'46	100	7.0	N	DR	525	3.4	12	ORC	DR	6.2-6.7	0-4	RC	35.0	7.3
Six	'47	100	7.0	N	DR	525	3.4	12	ORC	DR	6.2-6.7	0-4	RC	35.0	7.2-7.4†
Six	'48	100	7.0	N	DR	525	3.4	12	ORC	DR	6.4	0-4	RC	36.0	7.4
CHRYSLER															
Six C-22	'39	105	8.0‡	P	AL	880	4.0	25	ORC	AL	6.5	1.75	RC	28.0	7.5
De Luxe 8	'39	120	8.0‡	P	AL	880	4.0	25	ORC	AL	6.5	1.75	RC	28.0	7.5
Cus. Imp.	'39	136	9.0‡	P	AL	880	4.0	25	ORC	AL	6.5	1.75	RC	28.0	7.5
Six C-25	'40	119	—	P	AL	880	4.0	25	ORC	AL	6.5	1.0	RC	35.0	8.0
De Luxe C-26	'40	135	—	P	AL	880	4.0	25	ORC	AL	6.5	1.0	RC	35.0	8.0

For key to abbreviations see page 99

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. . . THE MOST COMPLETE MECHANICAL SERVICE AVAILABLE IN CANADA

BATTERY, STARTING MOTOR AND GENERATOR

Make and Model	Year	Battery—Amp. Hr. Capacity	Bench Charging Rate—Finish	Terminal Grounded	Starting Motor—Make	Lock Test—Amp. Draw	Lock Test—Volts	Lock Test—Torque (ft.-lbs.)	Drive Type	Generator—Make	Cutout Relay—Volts to Close	Cutout Relay—Amps. to open	Type Generator Regulation	Maximum Charging Rate—Amps.	Maximum Charging Rate—Volts
CHRYSLER—Cont.		BATTERY			STARTING MOTOR					GENERATOR					
Cus. Imp. C-27	'40	135	—	P	AL	880	4.0	25	ORC	AL	6.5	1.0	RC	35.0	8.0
Royal 6 C-28	'41	120	—	P	AL	880	4.0	25	ORC	AL	6.4-6.6	4-6	RC	34-36	8.0
New Yorker 8 C-30	'41	135	—	P	AL	880	4.0	25	ORC	AL	6.4-6.6	4-6	RC	34-36	8.0
Crown Imp. C-33	'41	135	—	P	AL	880	4.0	25	ORC	AL	6.4-6.6	4-6	RC	34-36	8.0
Royal 6 C-34	'42	120	—	P	AL	880	4.0	25	ORC	AL	6.4-6.6	4-6	RC	34-36	8.0
New Yorker 8 C-36	'42	135	—	P	AL	880	4.0	25	ORC	AL	6.4-6.6	4-6	RC	34-36	8.0
Crown Imp. C-37	'42	135	—	P	AL	880	4.0	25	ORC	AL	6.4-6.6	4-6	RC	34-36	8.0
C-38W, C-38S	'46	120	5.0	P	AL	580	3.4	15	ORC	AL	6.6-6.9	2-6	RC	35.0	8.0
C-38W, C-38S	'47	120❖	6.0	P	AL	580	3.4	14-16	ORC	AL	6.6-6.9	2-6	RC	35.0	8.0
Eight—C-39, C-40	'47	135❖	6.8	P	AL	580	3.4	14-16	ORC	AL	6.6-6.9	2-6	RC	35.0A	8.0
C-38W, C-38S	'48	120—	6.0	P	AL	580	3.4	14-16	ORC	AL	6.6-6.9	2-6	RC	35.0	8.0
Eight—C-39, C-40	'48	135—	6.8	P	AL	580	3.4	14-16	ORC	AL	6.6-6.9	2-6	RC	35.0A	8.0
CROSLEY															
Four	'48	70	4	P	AL	280	2	4.4	Bend	AL	6.4-7.0	4-6	VR	35	8.0
DE SOTO															
Six S-6	'39	105	8.0‡	P	AL	670	4.0	18	ORC	AL	6.5	1.75	RC	28.0	7.5
Six S-7	'40	105	—	P	AL	670	4.0	18	ORC	AL	6.5	1.9	RC	35.0	8.0
Six S-8	'41	105	—	P	AL	670	4.0	18	ORC	AL	6.4-6.6	4-6	RC	34-36	8.0
Six S-10	'42	105	—	P	AL	670	4.0	18	ORC	AL	6.4-6.6	4-6	RC	34-36	8.0
S-11	'46	110	5.0	P	AL	525	3.4	13	ORC	AL	6.6-6.9	2-6	RC	35.0	8.0
S-11	'47	110	5.5	P	AL	525	3.4	12-14	ORC	AL	6.6-6.9	2-6	RC	35.0	8.0
S-11	'48	110	5.5	P	AL	525	3.4	12-14	ORC	AL	6.6-6.9	2-6	RC	35.0	8.0
DODGE															
De Luxe Six D-12	'39	90	6.0‡	P	AL	670	4.0	18	ORC	AL	6.5	1.75	3Br	19.0	8.0
Standard Six D-13	'39	90	6.0‡	P	AL	670	4.0	18	ORC	AL	6.5	1.75	VR	30.0	7.6
Big 6 D-11	'39	95	7.0‡	P	AL	670	4.0	18	ORC	AL	6.5	1.75	RC	28.0	7.5
Six D-15	'40	95	—	P	AL	670	4.0	18	ORC	AL	6.5	1.75	VR	35.0	8.0
De Luxe D-16	'40	95	—	P	AL	670	4.0	18	ORC	AL	6.5	1.75	VR	35.0	8.0
Big 6 D-14	'40	95	—	P	AL	670	4.0	18	ORC	AL	6.5	1.75	RC	35.0	8.0
Kingsway 6 D-20	'41	95	—	P	AL	560	4.0	11.8	ORC	AL	6.4-6.6	4-6	RC	34-36	8.0
De Luxe D-21	'41	95	—	P	AL	560	4.0	11.8	ORC	AL	6.4-6.6	4-6	RC	34-36	8.0
Luxury Liner D-19	'41	95	—	P	AL	560	4.0	11.8	ORC	AL	6.4-6.6	4-6	RC	34-36	8.0
De Luxe D-23	'42	95	—	P	AL	560	4.0	11.8	ORC	AL	6.4-6.6	4-6	RC	34-36	8.0
Custom D-22	'42	95	—	P	AL	560	4.0	11.8	ORC	AL	6.4-6.6	4-6	RC	34-36	8.0
D-25	'46	95	5.0	P	AL	525	3.8	13	Bend	AL	6.6-6.9	2-6	RC	35.0	8.0
D-24	'46	105	5.0	P	AL	525	3.8	13	Bend	AL	6.6-6.9	2-6	RC	35.0	8.0
D-25	'47	95	4.8	P	AL	525	3.8	12-14	Bend	AL	6.6-6.9	2-6	RC	35.0	8.0
D-24	'47	95	5.3	P	AL	525	3.4	12-14	Bend	AL	6.6-6.9	2-6	RC	35.0	8.0
D-25	'48	95	4.8	P	AL	525	3.8	12-14	Bend	AL	6.6-6.9	2-6	RC	35.0	8.0
D-24	'48	95	5.3	P	AL	525	3.4	12-14	Bend	AL	6.6-6.9	2-6	RC	35.0	8.0
FORD															
V-8 85	'39	100	7.0‡	P	AL	600	3.0	16	Bend	AL	6.0	1.75	VR	30.0	6.8
V-8 85	'40	120	—	P	O	500	3.2	14	Bend	O	6.2	1.7	VR	32.0	6.0
V-8 85	'41	120	8.0	P	O	500	3.2	14	Bend	FA	6.0-6.3	7-8	RC	32.0	—
V-8 85	'42	120	8.0	P	O	500	3.2	14	Bend	FA	6.0-6.3	7-8	RC	32.0	—
De Luxe	'46	120	6.0‡	P	AL	600	3.0	16	Bend	AL	6.3-6.9	2-6	VR	32.0	7.4

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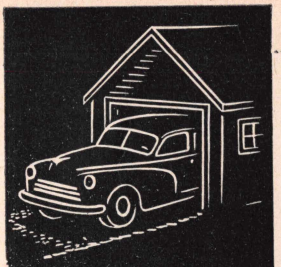
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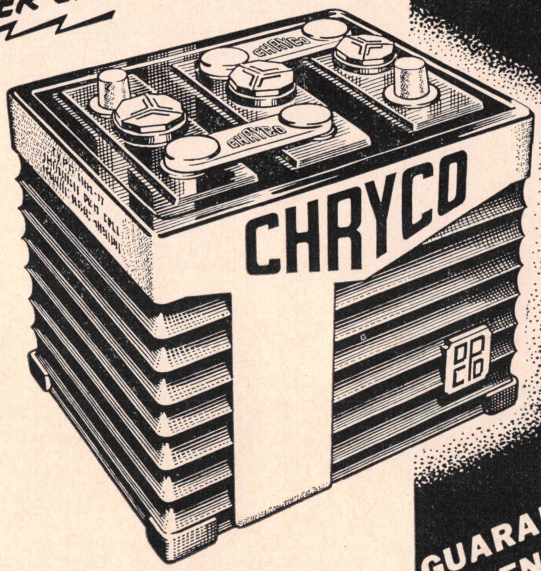
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BATTERY, STARTING MOTOR AND GENERATOR

Make and Model	Year	Battery—Amp. Hr. Capacity	Bench Charging Rate—Finish	Terminal Grounded	Starting Motor—Make	Lock Test—Amp. Draw	Lock Test—Volts	Lock Test—Torque (ft.-lbs.)	Drive Type	Generator—Make	Cutout Relay—Volts to Close	Cutout Relay—Amps. to open	Type Generator Regulation	Maximum Charging Rate—Amps.	Maximum Charging Rate—Volts
FORD (Continued)		BATTERY			STARTING MOTOR					GENERATOR					
Super De Luxe	'46	120	6.0‡	P	AL	600	3.0	16	Bend	AL	6.3-6.9	2-6	VR	32.0	7.4
De L. & Super De L.	'47	120	6.0‡	P	AL	600	3.0	16	Bend	AL	6.3-6.9	2-6	RC	32.0	7.4
De L. & Super De L.	'48	120	6.0‡	P	AL	600	3.0	16	Bend	AL	6.3-6.9	2-6	RC	32.0	7.4
FRAZER															
F-47	'47	105	7.0	P	AL	670	4.0	18	Bend	AL	6.4-7.0	4-6	RC	35.0	8.0
F47, F47C, F485, F486.	'48	105	7	P	AL	670	4	18	Bend	AL	6.4-6.6	4.8-5.6	RC	35∅	7.35∅
GRAHAM															
Six-96	'39	95	7.0‡	P	DR	525	3.4	12	ORC	DR	7.0	2.0	c	21.0	8.2
Six-97	'39	105	7.0‡	P	DR	525	3.4	12	ORC	DR	7.0	2.0	VR	30.0	8.0
Six-107	'40	105	—	P	DR	525	3.4	12	ORC	DR	7.0	2.0	VR	30.0	8.0
Six-108	'40	95	—	P	DR	525	3.4	12	ORC	DR	7.0	2.0	VR	30.0	8.0
HUDSON															
Six-93	'39	105	7.0‡	P	AL	775	4.0	22.5	Bend	AL	6.5	1.75	VR	34.0	8.0
Six-91	'39	105	7.0‡	P	AL	775	4.0	22.5	Bend	AL	6.5	1.75	VR	34.0	8.0
Six-92	'39	105	7.0‡	P	AL	775	4.0	22.5	Bend	AL	6.5	1.75	VR	34.0	8.0
Eight-95	'39	125	8.0‡	P	AL	775	4.0	22.5	Bend	AL	6.5	1.75	VR	34.0	8.0
Eight-97	'39	125	8.0‡	P	AL	775	4.0	22.5	Bend	AL	6.5	1.75	VR	34.0	8.0
Six-90	'39	105	7.0‡	P	AL	750	4.0	17	Bend	AL	6.5	1.75	3Br	20.6	8.0
Six-98	'39	105	7.0‡	P	AL	750	4.0	17	Bend	AL	6.5	1.75	3Br	20.6	8.0
Six-41	'40	96	—	P	AL	560	4.0	11.8	Bend	AL	6.5	2.0	VR	33.0	8.0
Six-43	'40	96	—	P	AL	560	4.0	11.8	Bend	AL	6.5	2.0	VR	33.0	8.0
Six-48	'40	96	—	P	AL	560	4.0	11.8	Bend	AL	6.5	2.0	VR	33.0	8.0
Eight-44	'40	108	—	P	AL	775	4.0	22.5	Bend	AL	6.5	2.0	VR	41.0	8.0
Eight-47	'40	108	—	P	AL	775	4.0	22.5	Bend	AL	6.5	2.0	VR	41.0	8.0
Six-40	'40	96	—	P	AL	560	4.0	11.8	Bend	AL	6.5	2.0	VR	33.0	8.0
Six 10	'41	96	—	P	AL	560	4.0	11.8	Bend	AL	6.4-6.6	4-6	VR	32-34	8.0
Six 11-12	'41	96	—	P	AL	560	4.0	11.8	Bend	AL	6.4-6.6	4-6	VR	39-43	8.0
Six 18	'41	96	—	P	AL	560	4.0	11.8	Bend	AL	6.4-6.6	4-6	VR	32-34	8.0
Eight	'41	108	—	P	AL	775	4.0	22.5	Bend	AL	6.4-6.6	4-6	VR	39-43	8.0
"6"—20Sp.	'42	96	—	P	AL	540	4.0	12.3	Bend	AL	6.5-7.2	2.0	VR	35.0	8.0
"6"—20P, 21, 22	'42	96	—	P	AL	540	4.0	12.3	Bend	AL	6.5-7.2	2.0	VR	43.0	8.0
"6"—28	'42	96	—	P	AL	540	4.0	12.3	Bend	AL	6.5-7.2	2.0	VR	35.0	8.0
Eights	'42	108	—	P	AL	780	4.0	22.5	Bend	AL	6.5-7.2	2.0	VR	43 0	8.0
Six-51, 52	'46	96	—	P	AL	540	4.0	12.3	Bend	AL	6.5-7.2	2-0	VR	44.0	8.0
Eight-53, 54	'46	108	—	P	AL	780	4.0	22.5	Bend	AL	6.5-7.2	2-0	VR	44.0	8.0
Six-171, 172	'47	96	—	P	AL	540	4.0	12.3	Bend	AL	6.5-7.2	2-0	VR	37H	8.0
Eight-173, 174	'47	108	—	P	AL	780	4.0	22.5	Bend	AL	6.5-7.2	2-0	VR	37H	8.0
Series 481	'48	120	BC	P	AL	880	4	25	Bend	AL	6.4-7.0	2	VR	43	8.0
Series 482	'48	120	BC	P	AL	880	4	25	Bend	AL	6.4-7.0	2	VR	43	8.0
Series 483	'48	120	BC	P	AL	880	4	25	Bend	AL	6.4-7.0	2	VR	43	8.0
Series 484	'48	120	BC	P	AL	880	4	25	Bend	AL	6.4-7.0	2	VR	43	8.0
HUPMOBILE															
6-922E	'39	105	7.0‡	P	AL	750	4.0	17.0	Bend	AL	6.5	1.75	VR	32.0	8.0
8-925H	'39	120	8.0‡	P	AL	775	4.0	22.5	Bend	AL	6.5	1.75	VR	32.0	8.0

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BATTERY, STARTING MOTOR AND GENERATOR

Make and Model	Year	Battery—Amp. Hr. Capacity	Bench Charging Rate—Finish	Terminal Grounded	Starting Motor—Make	Lock Test—Amp. Draw	Lock Test—Volts	Lock Test—Torque (ft.-lbs.)	Drive Type	Generator—Make	Cutout Relay—Volts to Close	Cutout Relay—Amps. to open	Type Generator Regulation	Maximum Charging Rate—Amps.	Maximum Charging Rate—Volts
KAISER		BATTERY			STARTING MOTOR					GENERATOR					
K-100	'47	105	7.0	P	AL	670	4.0	18.	Bend	AL	6.4-7.0	4-6	RC	35.0	8.0
K-100-101-481-482	'48	105	7	P	AL	670	4	18	Bend	AL	6.4-6.6	4.8-5.6	RC	35∅	7.35∅
LINCOLN															
Linc. & Linc. Cont.	'41	120	—	P	O	500	3.6	14	Bend	O	6.0-6.3	7-8	RC	30-33	6.9-7.2
Linc. & Linc. Cont.	'47	120	4	P	O	600	3.0	16	Bend	O	6.1-6.3	0-7.5	RC	36.0	7.3
Linc. & Linc. Cont.	'48	120	4	P	O	600	3.0	16	Bend	O	6.1-6.3	0-7.5	RC	36.0	7.3
LA SALLE															
39-50	'39	112	8.0‡	P	DR	600	3.0	16	ORC	DR	6.4-6.8	3.0	VR	27.0	8.0
40-50 and 40-52	'40	115	—	P	DR	600	3.0	16	ORC	DR	6.2-6.7	3.0	VR	30.0	8.0
MERCURY															
Mercury	'39	100	7.0‡	P	AL	600	3.0	16	Bend	AL	6.0	1.75	VR	30.0	6.8
Mercury	'40	120	—	P	O	500	3.2	14	Bend	O	6.2	1.7	VR	32.0	6.8
Mercury	'41	120	8.0	P	O	500	3.2	14	Bend	FA	6.0-6.3	7-8	RC	32.0	—
Mercury	'42	120	8.0	P	O	500	3.2	14	Bend	FA	6.0-6.3	7-8	RC	32.0	—
114 & 114X	'46	120	6.0‡	P	AL	600	3.0	16	Bend	AL	6.3-6.9	2-6	VR	32.0	7.4
118	'46	120	6.0‡	P	AL	600	3.0	16	Bend	AL	6.3-6.9	2-6	VR	32.0	7.4
114, 114X & 118	'47	120	6.0‡	P	AL	600	3.0	16	Bend	AL	6.3-6.9	2-6	RC	32.0	7.4
114, 114X & 118	'48	120	6.0‡	P	AL	600	3.0	16	Bend	AL	6.3-6.9	2-6	RC	32.0	7.4
MONARCH															
Monarch	'46	120	6.0‡	P	AL	600	3.0	16	Bend	AL	6.3-6.9	2-6	VR	32.0	7.4
Monarch	'47	120	6.0‡	P	AL	600	3.0	16	Bend	AL	6.3-6.9	2-6	RC	32.0	7.4
Monarch	'48	120	6.0‡	P	AL	600	3.0	16	Bend	AL	6.3-6.9	2-6	RC	32.0	7.4
NASH															
Lafayette	'39	105	7.0‡	P	AL	775	4.0	22.5	Bend	AL	6.5	1.75	RC	33.0	8.0
Ambassador 6	'39	105	7.0‡	P	AL	775	4.0	22.5	Bend	AL	6.5	1.75	RC	33.0	8.0
Ambassador 8	'39	120	8.0‡	P	AL	775	4.0	22.5	Bend	AL	6.5	1.75	RC	33.0	8.0
Lafayette	'40	95	—	P	AL	775	4.0	22.5	Bend	AL	6.5	1.75	RC	35.0	8.0
Ambassador 6	'40	105	—	P	AL	775	4.0	22.5	Bend	AL	6.5	1.75	RC	35.0	8.0
Ambassador 8	'40	120	—	P	AL	775	4.0	22.5	Bend	AL	6.5	1.75	RC	35.0	8.0
Ambassador 600	'41	90	—	P	DR	540	3.3	11.5	Bend	DR	6.2-6.7	0-4	RC	34.0	8.0
Ambassador 6	'41	105	—	P	AL	775	4.0	22.5	Bend	AL	6.4-6.6	4-6	RC	34-36	8.0
Ambassador 8	'41	120	—	P	AL	775	4.0	22.5	Bend	AL	6.4-6.6	4-6	RC	34-36	8.0
4240—"6"	'42	90	—	P	DR	540	3.3	11.5	Bend	DR	6.2-6.7	0-4	RC	34.0	8.0
4260—"6"	'42	105	—	P	AL	775	4.0	22.5	Bend	AL	6.4-6.6	4-6	RC	34-36	8.0
4280—"8"	'42	120	—	P	AL	775	4.0	22.5	Bend	AL	6.4-6.6	4-6	RC	34-36	8.0
Series 4640	'46	90	—	P	AL	—	—	—	—	AL	6.4-6.7	4-6	RC	35.0	8.0
Series 4660	'46	105	—	P	AL	775	4.0	22.5	Bend	AL	6.4-6.7	4-6	RC	35.0	7.4
Series 4740	'47	90	4 6	P	AL	—	—	—	Bend	AL	6.4-6.7	4-6	RC	35.0	7.4
Series 4760	'47	105	4 6	P	AL	775	4.0	22.5	Bend	AL	6.4-6.7	4-6	RC	35.0	7.4
Series 4840	'48	90	2	P	AL	540	3.3	—	Bend	AL	6.2 6.7	4-6	FC	32-34	7.2-7.4
Series 4850	'48	120	2	P	AL	540	3.3	—	Bend	AL	6.2-6.7	4-6	FC	34	7.2-7.4

For key to abbreviations see page 99

SEE MOTOR MAGAZINE FOR LATEST TECHNICAL INFORMATION
. . . THE MOST COMPLETE MECHANICAL SERVICE AVAILABLE IN CANADA

BATTERY, STARTING MOTOR AND GENERATOR

Make and Model	Year	Battery—Amp. Hr. Capacity	Bench Charging Rate—Finish	Terminal Grounded	Starting Motor—Make	Lock Test—Amp. Draw	Lock Test—Volts	Lock Test—Torque (ft.-lbs.)	Drive Type	Generator—Make	Cutout Relay—Volts to Close	Cutout Relay—Amps. to open	Type Generator Regulation	Maximum Charging Rate—Amps.	Maximum Charging Rate—Volts
OLDSMOBILE		BATTERY			STARTING MOTOR					GENERATOR					
Six	'39	97	7.0‡	N	DR	525	3.4	12	ORC	DR	6.5	4.0	VR	26.0	8.0
35-00 & 36-00	'40	97	—	N	DR	475	3.0	12	ORC	DR	6.5	3.0	VR	30.0	8.0
Six	'41	100	—	N	DR	525	3.37	12	ORC	DR	6.2-6.7	0-4	RC	34.0	8.0
Six (Imported)	'41	100	4.5	N	DR	525	3.37	12	ORC	DR	6.2-6.7	0-4	RC	34.0	8.0
Eight	'41	120	4.5	N	DR	600	3.0	15	ORC	DR	6.2-6.7	0-4	RC	34.0	8.0
Six	'42	100	—	N	DR	525	3.37	12	ORC	DR	6.2-6.7	0-4	RC	34.0	8.0
Eight	'42	120	4.5	N	DR	600	3.0	15	ORC	DR	6.2-6.7	0-4	RC	34.0	8.0
Six	'46	100	4.5	N	DR	475	3.0	12	ORC	DR	6.5	2.0	RC	33.0	7.8
Eight	'46	120	5.25	N	DR	600	3.0	15	ORC	DR	6.5	2.0	RC	33.0	7.8
Six	'47	100	7.0	N	DR	475	3.0	12	ORC	DR	6.2-6.7	0-4	RC	32-34	7.2-7.4†
Eight	'47	120	7.0	N	DR	600	3.0	15	ORC	DR	6.2-6.7	0-4	RC	32-34	7.2-7.4†
Six	'48	100	7.0	N	DR	475	3.0	12	ORC	DR	6.2-6.7	0.4	RC	32-34	7.2-7.4†
Eight	'48	120	7.0	N	DR	600	3.0	15	ORC	DR	6.2-6.7	0-4	RC	32-34	7.2-7.4†
PACKARD															
Six	'39	95	7.0‡	P	AL	670	4.0	18	Bend	AL	6.5	1.75	VR	30.5	8.0
Eight	'39	114	8.0‡	P	AL	670	4.0	18	Bend	AL	6.5	1.75	VR	30.5	8.0
Super 8	'39	150	8.0‡	P	AL	730	3.6	29.2	Bend	AL	6.5	1.75	RC	28.0	7.5
Twelve	'39	150	10.0‡	P	AL	810	3.6	39	Bend	AL	6.5	1.75	RC	30.0	7.5
Six	'40	95	—	P	AL	560	4.0	11.8	Bend	AL	6.5	1.0	VR	35.0	8.0
Eight	'40	113	—	P	AL	670	4.0	18	Bend	AL	6.5	1.0	VR	35.0	8.0
Super 8	'40	113	—	P	AL	906	4.0	45.9	ORC	AL	6.5	1.0	RC	35.0	8.0
110 (Series 1900)	'41	95	—	P	AL	670	4.0	18	Bend	AL	6.4-6.6	4-6	RC	34-36	8.0
120	'41	114	—	P	AL	670	4.0	18	Bend	AL	6.4-6.6	4-6	RC	34-36	8.0
Super 8	'41	114	—	P	AL	906	4.0	45.9	ORC	AL	6.4-6.6	4-6	RC	34-36	8.0
"6"—2000	'42	100	—	P	AL	670	4.0	18	Bend	AL	6.5-7	4-6	VR	35.0	8.0
"8"—2001	'42	100	—	P	AL	670	4.0	18	Bend	AL	6.5-7	4-6	VR	35.0	8.0
"Super 8"—2003, 6	'42	120	—	P	AL	906	4.0	45.9	ORC	AL	6.5-7	4-6	VR	35.0	8.0
2100	'46	100	—	P	AL	670	4.0	18	Bend	AL	6.5-7	—	VR	35.0	—
2101 & 2111	'46	100	—	P	AL	670	4.0	18	Bend	AL	6.5-7	—	VR	35.0	—
2103 & 2126	'46	120	—	P	AL	906	4.0	45.9	SA	AL	6.5-7	—	VR	35.0	—
2100 & 2130	'47	100	—	P	AL/DR	670	4.0	18	Bend	AL	6.5-7	—	RC	35.0	7.4
2101 & 2111	'47	100	—	P	AL	670	4.0	18	SA	AL	6.5-7	—	RC	35.0	7.4
2103, 2106 & 2126	'47	120	—	P	AL	906	4.0	45.9	SA	AL	6.5-7	—	RC	35.0	7.4
2201, 2211	'48	100	—	P	AL/DR	—	4/3	25/16	Bend	—	6.5-7	—	VR	35	7.4
2202, 2232	'48	100	—	P	AL/DR	—	4/3	25/16	Bend	—	6.5-7	—	VR	35	7.4
2206, 2233	'48	120	—	P	AL	906	4	45.9	SA	AL	6.5-7	—	VR	35	7.4
PLYMOUTH															
Six P-7	'39	90	6.0‡	P	AL	670	4.0	18	ORC	AL	6.5	1.75	3Br	19.0	8.0
De Luxe 6 P-8	'39	90	6.0‡	P	AL	670	4.0	18	ORC	AL	6.5	1.75	VR	30.0	8.0
Six P-9	'40	95	—	P	AL	670	4.0	18	ORC	AL	6.5	1.75	RC	35.0	8.0
De Luxe 6 P-10	'40	95	—	P	AL	670	4.0	18	ORC	AL	6.5	1.75	RC	35.0	8.0
Road King P-11	'41	95	—	P	AL	670	4.0	18	ORC	AL	6.4-6.6	4-6	RC	34-36	8.0
De Luxe P-12	'41	95	—	P	AL	670	4.0	18	ORC	AL	6.4-6.6	4-6	RC	34-36	8.0
De Luxe P-14	'42	95	—	P	AL	670	4.0	18	ORC	AL	6.4-6.6	4-6	RC	34-36	8.0
P-15	'46	95	5.0	P	AL	525	3.8	13	Bend	AL	6.6-6.9	2-6	RC	35.0	8.0
P-15	'47	95	4.8	P	AL	525	3.8	12-14	Bend	AL	6.6-6.9	2-6	RC	35.0	8.0
P-15	'48	95	4.8	P	AL	525	3.8	12-14	Bend	AL	6.6-6.9	2-6	RC	35.0	8.0

(Continued on page 98)

For key to abbreviations see page 99

SEE MOTOR MAGAZINE FOR LATEST TECHNICAL INFORMATION
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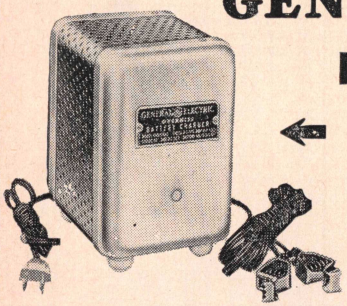
BATTERY, STARTING MOTOR AND GENERATOR

Make and Model	Year	Battery—Amp. Hr. Capacity	Bench Charging Rate—Finish	Terminal Grounded	Starting Motor—Make	Lock Test—Amp. Draw	Lock Test—Volts	Lock Test—Torque (ft-lbs.)	Drive Type	Generator—Make	Cutout Relay—Volts to Close	Cutout Relay—Amps. to open	Type Generator Regulation	Maximum Charging Rate—Amps.	Maximum Charging Rate—Volts
PONTIAC		**BATTERY**			**STARTING MOTOR**					**GENERATOR**					
Chieftain	'39	97	7.0‡	N	DR	525	3.4	12	ORC	DR	6.5	4.0	VR	26.0	8.0
Arrow	'39	100	8.0‡	N	DR	525	3.4	12	ORC	DR	6.5	4.0	VR	26.0	8.0
Special 25-00	'40	97	—	N	DR	525	3.4	12	ORC	DR	6.5	3.0	VR	30.0	8.0
Arrow	'40	97	—	N	DR	525	3.4	12	Bend	DR	6.5	3.0	VR	30.0	8.0
Fleet. & Torpedo 6	'41	100	—	N	DR	525	3.37	12	ORC	DR	6.2-6.7	0-4	RC	34.0	8.0
Sixes	'42	100	—	N	DR	525	3.37	12	ORC	DR	6.2-6.7	0-4	RC	34.0	8.0
Six	'46	100	7.0	N	DR	525	3.37	12	Bend	DR	6.2-6.7	0-4	RC	32-34	7.2-7.4†
Eight	'46	100	7.0	N	DR	600	3.0	15	Bend	DR	6.2-6.7	0-4	RC	32-34	7.2-7.4†
Six	'47	100	7.0	N	DR	525	3.37	12	Bend	DR	6.2-6.7	0-4	RC	32-34	7.2-7.4†
Eight	'47	100	7.0	N	DR	600	3.0	15	Bend	DR	6.2-6.7	0-4	RC	32-34	7.2-7.4†
Six	'48	100	7.0	N	DR	525	3.37	12	Bend	DR	6.2-6.7	0-4	RC	32-34	7.2-7.4†
Eight	'48	100	7.0	N	DR	600	3.0	15	Bend	DR	6.2-6.7	0-4	RC	32-34	7.2-7.4†

N.B. Fleetleaders (1941-2-6-7-8) are 20 and 22 Series; Torpedo 6 & 8 (1941-2-6-7-8) are 25 and 27 Series respectively. Streamliner 6 & 8 (1941-2-6-7-8) are 26 and 28 Series respectively; Streamliner 6 & 8 (1948) not distributed in Canada.

For key to abbreviations see page 99

GENERAL ELECTRIC



BATTERY CHARGERS

"OVERNITE" TYPE NO. 6RS916A2

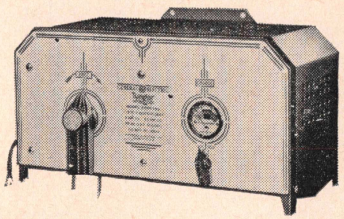
ONE DAY TYPE NO. 6RS916A1

Best suited for home and farm this type G-E charger completes the charge in 12 hours or 24 hours depending on the model. They are 60 cycle only.

GARAGE TYPE—HALF WAVE

NOS. 33BX1-4

G-E Garage Type chargers are of 6 or 12 battery capacity in both 25 and 60 cycle.



CANADIAN GENERAL ELECTRIC CO LTD

HEAD OFFICE: TORONTO

48-K-2

★ *Turn to page 88 for more information*

BATTERY, STARTING MOTOR AND GENERATOR

Make and Model	Year	Battery—Amp. Hr. Capacity	Bench Charging Rate—Finish	Terminal Grounded	Starting Motor—Make	Lock Test—Amp. Draw	Lock Test—Volts	Lock Test—Torque (ft.-lbs.)	Drive Type	Generator—Make	Cutout Relay—Volts to Close	Cutout Relay—Amps. to open	Type Generator Regulation	Maximum Charging Rate—Amps.	Maximum Charging Rate—Volts
STUDEBAKER		**BATTERY**			**STARTING MOTOR**					**GENERATOR**					
Commander 6 (9A)	'39	95	7.0‡	P	AL	670	4.0	18	Bend	AL	6.5	1.75	VR	28.0	8.0
President 8 (5C)	'39	95	7.0‡	P	DR	600	3.0	16	ORC	DR	6.7-7.6	3.0	RC	30.0	8.0
Champion "G"	'39	90	6.0‡	P	AL	560	4.0	18	Bend	AL	6.5	1.75	VR	30.0	8.0
Commander 6 (10A)	'40	95	—	P	AL	670	4.0	18	Bend	AL	6.4	1.0	RC	35.0	8.0
President 8 (6C)	'40	95	—	P	DR	600	3.0	16	ORC	DR	6.4	1.0	RC	30.0	8.0
Champion 2G	'40	90	—	P	AL	560	4.0	11.8	Bend	AL	6.4	1.0	VR	35.0	8.0
Commander 6-11A	'41	95	5.75	P	AL	670	4.0	18	Bend	AL	6.4-6.6	4-6	RC	34-36	8 0
President 8-7C	'41	95	5.75	P	AL	880	4.0	25	ORC	AL	6.4-6.6	4-6	RC	34-36	8.0
Champion 6-3G	'41	90	5.75	P	AL	560	4.0	11.8	Bend	AL	6.4-6.6	4-6	RC	34-36	8.0
Commander 6-12A	'42	95	5.75	P	AL	670	4.0	18	Bend	AL	6.4-6.6	4-6	RC	34-36	8.0
President 8-8C	'42	95	5.75	P	AL	880	4.0	25	ORC	AL	6.4-6.6	4-6	RC	34-36	8.0
Champion 6-4G	'42	90	5.75	P	AL	560	4.0	11.8	Bend	AL	6.4-6.6	4-6	RC	34-36	8.0
Skyway, 5G	'46	90	5.75	P	AL	560	4.0	11.8	Bend	AL	6.4-6.6	4.6	RC	34-36	8.0
Champion 6-G	'47	100	5.75	P	AL	560	4.0	11.8	Bend	AL	6.4-6.6	4-6	RC	35.0	8.0
Commander 14A	'47	100	5.75	P	AL	670	4.0	18	Bend	AL	6.4-6.6	4-6	RC	35.0	8.0
Champion 7G	'48	100❖	5.75	P	AL	560	4	11.8	Bend	AL	6.4-6.6	—	RC	35	7.35
Commander 15A	'48	100❖	5.75	P	AL	670	4	18	Bend	AL	6.4-6.6	4-6	RC	35	7.35
WILLYS															
Four-48	'39	96	6.0‡	N	AL	560	4.0	11.8	Bend	AL	6.5	1.75	3Br	17.5	8.0
Overland-39	'39	96	6.0‡	N	AL	560	4.0	11.8	Bend	AL	6.5	1.75	VR	21.0	8.0
Willys 440	'40	80	—	N	AL	560	4.0	11.8	Bend	AL	6.5	0.5	VR	25.0	8.0
Willys Americar	'41	80	—	N	AL	560	4.0	11.8	Bend	AL	6.4-6.6	4-6	VR	24-26	8.0
Willys Americar	'42	80	5.0	N	AL	560	4.0	11.8	Bend	AL	6.4-6.6	4-6	VR	24-26	8.0
CJ-2A Universal Jeep	'45	100	—	N	AL	420	3.0	7.8	Bend	AL	6.4-7.0	4-6	RC	35.0	8.0
CJ-2A Universal Jeep	'47	100	4.8	N	AL	420	3.0	7.8	Bend	AL	6.4-7.0	4-6	RC	35.0	8.0
CJ-2A	'48	100	5	N	AL	560	3.0	11.8	Bend	AL	7.2-7.5	4-6	RC	35	8.0
4-63, 6-63, 2WD&4WD	'48	100	5	N	AL	420	3.0	7.8	Man	AL	7.2-7.5	4-6	RC	35	8.0

ABBREVIATIONS

A=C-40,-40 amps.
AL=Auto-Lite.
Bend=Bendix.
BC=Cold 43A 8V; hot 37A 8V.
c=Lamp load controlled.
DR=Delco-Remy.
FA=Ford Auto-Lite.
FC=Full Current
H=Hot.
L=Lucas
Man=Manual.
N=Negative.
O=Own.
ORC=Overrunning clutch.
P=Positive.
RC=Voltage and current regulator.
SA=Solenoid actuated.
Sol=Solenoid.
VR=Voltage regulator.
3br=Third brush.
@=Reverse current.
†=Operating temperature.
‡=Providing temperature does not exceed 110°F.
❖=At the 20 hr. discharge rate.
∅=At 70°F.
*=12 volt system.

SEE MOTOR MAGAZINE FOR LATEST TECHNICAL INFORMATION
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BRAKES AND BRAKE LININGS

Make and Model	Year	Brake Mechanism—Make	Brake Mechanism—Type	Drum Diameter	Lining—Length per Wheel	Lining—Width	Lining—Thickness	Clearance—Toe	Clearance—Heel	Hand Brake—Drum Diameter	Lining—Length	Lining—Width	Lining—Thickness	Lining—Clearance (Minimum—Maximum)
AUSTIN (English)														
A.40	'48	G	HM	9	—	—	—	—	—	9	9.5	—	—	—
BUICK														
44 Special	'39	O	H	12	22 11/16	1 3/4	3/16	.010	.010	Rear Two Service Brakes				
46 Century	'39	O	H	12	22 11/16	2	3/16	.010	.010	Rear Two Service Brakes				
48 Roadmaster	'39	O	H	12	22 11/16	2	3/16	.010	.010	Rear Two Service Brakes				
49 Limited	'39	O	H	14	26 13/16	2	1/4	.010	.010	Rear Two Service Brakes				
44-00 & 45-00	'40	O	H	12	22 11/16	1 3/4	3/16	.009	.009	Rear Two Service Brakes				
47 Roadmaster	'40	O	H	12	22 15/16	2 1/4	3/16	.009	.009	Rear Two Service Brakes				
Spec. 44; Super 45	'41	O	H	12	b	1 3/4	3/16	.015	.015	Rear Two Service Brakes				
Series 46, 47	'41	O	H	12	cc	2 1/4	3/16	.015	.015	Rear Two Service Brakes				
Series 49	'41	O	H	14	d	2	1/4	.015	.015	Rear Two Service Brakes				
Series 44	'42	O	H	12	22 11/16	1 1/4	3/16	.015	.015	Rear Two Service Brakes				
Series 46	'42	O	H	12	22 15/16	2 1/4	3/16	.015	.015	Rear Two Service Brakes				
Series 50	'46	O	H	12	23 1/16	1 3/4	3/16	.015	.015	Rear Two Service Brakes				
Series 70	'46	O	H	12	23 1/16	2 1/4	3/16	.015	.015	Rear Two Service Brakes				
Series 40	'47	B	H	12	23 1/16	1 3/4	3/16	.015	.015	Rear Two Service Brakes				
Series 50	'47	B	H	12	23 1/16	1 3/4	3/16	.015	.015	Rear Two Service Brakes				
Series 70	'47	B	H	12	23 1/16	2 1/4	3/16	.015	.015	Rear Two Service Brakes				
Series 40, 50, 70	'48	(Not distributed in Canada)												
CADILLAC														
V-8 61	'39	B	H	12	25 7/8	2	3/16	.010	.010	Rear Two Service Brakes				
V-8 60S	'39	B	H	12	25 7/8	2 1/4	3/16	.010	.010	Rear Two Service Brakes				
V-8 75	'39	B	H	14	30	2 1/4	1/4	.010	.010	Rear Two Service Brakes				
V-16 90	'39	B	Hv	14	h	2 1/4	1/4	.010	.010	Rear Two Service Brakes				
V-8 62	'40	B	H	12	25 7/8	2	3/16	.010	.010	Rear Two Service Brakes				
V-8 60S	'40	B	H	12	25 7/8	2	3/16	.010	.010	Rear Two Service Brakes				
V-8 75	'40	B	H	14	30	2 1/4	1/4	.010	.010	Rear Two Service Brakes				
Series 60, 61, 62, 63	'41	B	H	12	24 1/2	2	3/16	.010	.010	Rear Two Service Brakes				
Series 67, 75	'41	B	H	12	24 1/2	2 1/2	3/16	.010	.010	Rear Two Service Brakes				
Series 60, 61, 62, 63	'42	B	H	12	24 1/2	2	3/16	.010	.010	Rear Two Service Brakes				
Series 67, 75	'42	B	H	12	24 1/2	2 1/2	3/16	.010	.010	Rear Two Service Brakes				
"V" Eight	'46	B	H	12	24 1/2	**	3/16	.010	.010	Rear Two Service Brakes				
Eight	'47	B	H	12@	24 1/2	F	3/16	.007-.010	.007-.010	Rear Two Service Brakes				
V-8	'48	(Not distributed in Canada)												
CHEVROLET														
Six	'39	O	H	11	22 5/8	1 3/4	3/16	w	w	Rear Two Service Brakes				
Six	'40	O	H	11	22 5/8	1 3/4	3/16	w	w	Rear Two Service Brakes				
Six	'41	O	H	11	22 5/8	1 3/4	3/16	w	w	Rear Two Service Brakes				
Six	'42	O	H	11	22 5/8	1 3/4	3/16	w	w	Rear Two Service Brakes				
Six	'46	O	H	11	22 5/8	1 3/4	3/16	w	w	Rear Two Service Brakes				
Six	'47	O	H	11	22 5/8	1 3/4	3/16	w	w	Rear Two Service Brakes				
Six	'48	O	H	11	22 5/8	1 3/4	3/16	w	w	Rear Two Service Brakes				

For key to abbreviations see page 113

SEE MOTOR MAGAZINE FOR LATEST TECHNICAL INFORMATION
. . . THE MOST COMPLETE MECHANICAL SERVICE AVAILABLE IN CANADA

BRAKES AND BRAKE LININGS

Make and Model	Year	Brake Mechanism—Make	Brake Mechanism—Type	Drum Diameter	Lining—Length per Wheel	Lining—Width	Lining—Thickness	Clearance—Toe	Clearance—Heel	Hand Brake—Drum Diameter	Lining—Length	Lining—Width	Lining—Thickness	Lining—Clearance (Minimum—Maximum)
CHRYSLER														
Six C-22	'39	O	H	11	18 3/4	2	13/64	.012	.006	6	17 1/16	2	5/32	.025
De Luxe 8	'39	O	H	12	25 1/8	2	13/64	.012	.006	6	17 1/16	2	5/32	.025
Imperial Custom	'39	O	H	13	24 27/32	2 1/4	1/4	.012	.006	7	21 1/2	2 1/2	3/16	.025
Six C-25	'40	O	H	11	19 7/16	2	13/64	.012	.006	6	17 1/16	2	5/32	.015
De Luxe 8 C-26	'40	O	H	12	P	2	13/64	.007	q	7	20 1/8	2 1/2	5/32	.015
Imp. Cus. C-27	'40	O	H	12	P	2	13/64	.007	q	7	20 1/8	2 1/2	5/32	.015
Royal 6 C-28	'41	O	H	11	19 7/16	2	13/64	.012	.006	6	17 1/16	2	5/32	.015
R. Windsor C-28W	'41	O	H	11	19 7/16	2	13/64	.012	.006	7	20 1/8	2	5/32	.015
New Yorker 8 C-30	'41	O	H	12	p	2	13/64	.007	q	7	20 1/8	2 1/2	5/32	.015
Crown Cus. C-33	'41	O	H	12	p	2	13/64	.007	q	7	20 1/8	2 1/2	5/32	.015
Royal 6 C-34	'42	O	H	11	19 7/16	2	13/64	.012	.006	6	17 1/16	2	5/32	.015
R. Windsor C-34W	'42	O	H	11	19 7/16	2	13/64	.012	.006	7	20 1/8	2	5/32	.015
New Yorker 8 C-36	'42	O	H	12	p	2	13/64	.007	q	7	20 1/8	2 1/2	5/32	.015
Crown Cus. C-37	'42	O	H	12	p	2	13/64	.007	q	7	20 1/8	2 1/2	5/32	.015
C-38W Windsor	'46	O-L	H	11	RR	2	13/64	.006	.006	7	20	2 1/2	5/32	.015-.020
C-38S Royal	'46	O-L	H	11	RR	2	13/64	.006	.006	6	16 11/16	2	5/32	.015-.020
Six C-38W, C-38S	'47	O-L	H	11	RR	2	13/64	.006	.006	7A	20AA	2 1/2a	5/32	.015-.020
Eight C-39, C-40	'47	O-L	H	12	RS	2	13/64	.006	.006	7	20	2 1/2	5/32	.015-.020
Six C-38W, C-38S	'48	O-L	H	11	RR	2	13/64	.006	.006	7A	20AA	2 1/2a	5/32	.015-.020
Eight C-39, C-40	'48	O-L	H	12	RS	2	13/64	.006	.006	7	20	2 1/2	5/32	.015-.020
CROSLEY														
Four	'48	(C)	M	6	14	31/64	3/16	.006-.008	.006-.008	6	14	31/64	3/16	.006-.008
DE SOTO														
Six S-6	'39	O	H	10	19 7/16	2	13/64	.012	.006	6	17 1/16	2	5/32	.015
Six S-7	'40	O	H	11	19 7/16	2	13/64	.012	.006	6	17 1/16	2	5/32	.015
Six S-8	'41	O	H	11	19 7/16	2	13/64	.012	.006	6	17 1/16*	2	5/32	.015
Six S-10	'42	O	H	11	19 7/16	2	13/64	.012	.006	7	20 1/8	2	5/32	.015
S-11	'46	O-L	H	11	RR	2	13/64	.006	.006	7	20	2 1/2	5/32	.015-.020
S-11	'47	O-L	H	11	RR	2	13/64	.006	.006	7	20	2 1/2	5/32	.015-.020
S-11	'48	O-L	H	11	RR	2	13/64	.006	.006	7	20	2 1/2	5/32	.015-.020
DODGE														
De Luxe D-12	'39	O	H	10	17 29/32	2	13/64	.012	.006	6	17 1/16	2	5/32	.015
Standard D-13	'39	O	H	10	17 29/32	2	13/64	.012	.006	6	17 1/16	2	5/32	.015
Big 6 D-11	'39	O	H	11	18 7/16	2	13/64	.012	.006	6	17 1/16	2	5/32	.015
Six D-15	'40	O	H	10	18	2	13/64	.012	.006	6	17 1/16	2	5/32	.015
De Luxe D-16	'40	O	H	10	18	2	13/64	.012	.006	6	17 1/16	2	5/32	.015
Big 6 D-14	'40	O	H	11	19 7/16	2	13/64	.012	.006	6	17 1/16	2	5/32	.015
Kingsway D-20	'41	O	H	10	18	2	13/64	.012	.006	6	17 1/16	2	5/32	.015
De Luxe D-21	'41	O	H	10	18	2	13/64	.012	.006	6	17 1/16	2	5/32	.015
Luxury Liner D-19	'41	O	H	11	19 7/16	2	13/64	.012	.006	6	17 1/16	2	5/32	.015
De Luxe D-23	'42	O	H	10	18	2	13/64	.012	.006	6	17 1/16	2	5/32	.015
Custom D-22	'42	O	H	11	19 7/16	2	13/64	.012	.006	6	17 1/16	2	5/32	.015
D-25	'46	O-L	H	10	FR	2	13/64	.006	.006	6	16 11/16	2	5/32	.015-.020
D-24	'46	O-L	H	11	RR	2	13/64	.006	.006	6	16 11/16	2	5/32	.015-.020
D-25	'47	O-L	H	10	FR	2	13/64	.006	.006	6	16 11/16	2	5/32	.015-.020
D-24	'47	O-L	H	11	RR	2	13/64	.006	.006	6	16 11/16	2	5/32	.015-.020
D-25	'48	O-L	H	10	FR	2	13/64	.006	.006	6	16 11/16	2	5/32	.015-.020
D-24	'48	O-L	H	11	RR	2	13/64	.006	.006	6	16 11/16	2	5/32	.015-.020

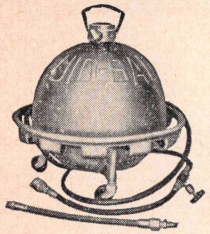
For key to abbreviations see page 113

(Continued on page 103)

SEE MOTOR MAGAZINE FOR LATEST TECHNICAL INFORMATION

. . . THE MOST COMPLETE MECHANICAL SERVICE AVAILABLE IN CANADA

Wagner offers everything needed for complete HYDRAULIC BRAKE SERVICE



WAGNER FLUID-BAL Portable and Easy to Handle

Sturdy, well-constructed, portable pressure bleeder and refiller that makes a "one-man" job of bleeding and refilling the hydraulic brake system of any car or truck, and helps modernize your brake department.

SELF-LEVELING MASTER CYLINDER REFILLER



Fully Automatic . . . Fills master cylinder to proper level—and no overflow is possible. Assures reliable job. Capacity onequart.



HOME STAND

Brake Cylinder Hone Outfit (AC or DC) includes Hone Motor Drive Assembly, NoGo Gauge and Hone Set, Master Cyiinder and NoRoL Wrenches, and Explosion-Proof Switch.

HONE DRIVE ASSEMBLY



(AC or DC) Hone Motor Assembly. The motor is totally enclosed to eliminate the possibil ty of fire hazard, and furnishes a seal against extraneous matter.

MASTER CYLINDER BURRING TOOL



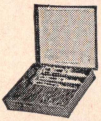
Master Cylinder Burring Tool. This tool is used to eliminate the burr that sometimes forms at the opening of the by-pass hole due to honing.

NO GO GAUGES



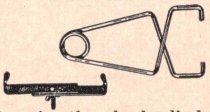
NoGo Gauges. Castings which are honed so large that the NoGo Gauge can enter should be scrapped.

HONE SET



To be used with a slow-speed drill or drill press. Necessary cutting and polishing stones included, together with adapter. Two assortments: ⅞" to 2" and 1" to 2" diameter.

WHEEL CYLINDER CLAMPS



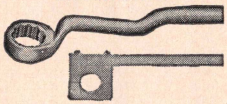
By using the wheel cylinder clamp, accidental blowing out of the pistons and subsequent bleeding operation is avoided.



HYDRAULIC LINE PRESSURE GAUGE

Hydraulic Line Pressure Gauge gives the exact line-pressure reading transmitted from the master cylinder to the wheel cylinder.

WRENCHES



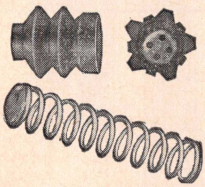
Special wrenches are available to properly adjust and tighten the anchor pins on the Wagner Hi-Tork brake, the Wagner master cylinder heads, and the Wagner NoRoL shaft seal.



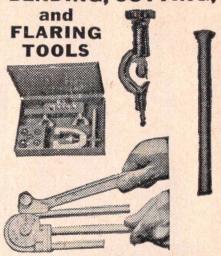
BLEEDER DRAIN and WRENCHES

Lightens the bleeding operation. Both wrenches and drain are needed.

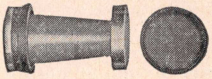
WAGNER LOCKHEED HYDRAULIC BRAKE PARTS



BENDING, CUTTING, and FLARING TOOLS



Their use will save time and assure good work.



Wagner Lockheed hydraulic brake parts are recommended for superior quality, perfect fit, proved performance and long life. Whenever brakes need repair be sure you use genuine Wagner Lockheed parts. Ask for Catalog AU-500 for up-to-date listings.

WAGNER LOCKHEED FLUID



Recommended for *all* hydraulic brakes because it retains its highly efficient qualities under all driving conditions. It completely and properly mixes with all other approved fluids and furnishes necessary lubrication for all working parts of the hydraulic brake system.



Send for these Valuable Booklets

1. AU-500 provides one-point reference to fast-moving brake parts and lining. Covers Lockheed Hydraulic Brake Parts and Fluid, CoMaX Brake Lining and Friction Materials.

2. HU-197 manual covers general service instructions and maintenance hints for hydraulic brakes.

3. HU-17G gives complete information on how to bleed and refill hydraulic brake systems. H48-22

Wagner Brake Company Limited
43 Edward Street, Toronto 2, Ontario

BRAKES AND BRAKE LININGS

Make and Model	Year	Brake Mechanism—Make	Brake Mechanism—Type	Drum Diameter	Lining—Length per Wheel	Lining—Width	Lining—Thickness	Clearance—Toe	Clearance—Heel	Hand Brake—Drum Diameter	Lining—Length	Lining—Width	Lining—Thickness	Lining—Clearance (Minimum—Maximum)
FORD														
V-8 85	'39	O-L	H	12	y	1.75	.20	.010	.005	Rear Two Service Brakes				
V-8 85	'40	O-L	H	12	y	1.75	.185	.010	.005	Rear Two Service Brakes				
V-8 85	'41	O-L	H	12	23 5/32	1 3/4	.200	.010	.005	Rear Two Service Brakes				
V-8 85	'42	O-L	H	12	23 5/32	1 3/4	.200	.010	.005	Rear Two Service Brakes				
De Luxe	'46	O-L	H	12	Y	1.75	.20	.010	FA	Rear Two Service Brakes				
Super De Luxe	'46	O-L	H	12	Y	1.75	.20	.010	FA	Rear Two Service Brakes				
De Luxe & Sup. De L.	'47	O-L	H	12	X	1 3/4	3/16	.010	FA	Rear Two Service Brakes				
De Luxe & Sup. De L.	'48	O-L	H	12	X	1 3/4	3/16	.010	FA	Rear Two Service Brakes				
FRAZER														
F-47	'47	B	H	11	m	2	13/64	.008	.008	Rear Two Service Brakes				
F-47-47C-485-486	'48	B	H2	11	22 5/32	2	13/64	.010	.010	Rear Two Service Brakes				
GRAHAM														
Six-96	'39	L	H	11	23	1 3/4	1/4	.010	.006	6	17 3/4	2	5/32	1/32
Six-97	'39	L	H	11	23	1 3/4	1/4	.010	.006	6	17 3/4	2	5/32	1/32
Six-107	'40	L	H	11	23	1 3/4	1/4	.010	.006	6	17 3/4	2	5/32	1/32
Six-108	'40	L	H	11	23	1 3/4	1/4	.010	.006	6	17 3/4	2	5/32	1/32
HUDSON														
Six-93	'39	B	H	10 1/16	22 1/8	1 3/4	7/32	.010	.010	Rear Two Service Brakes				
Six-91	'39	B	H	10 1/16	22 1/8	1 3/4	7/32	.010	.010	Rear Two Service Brakes				
Six-92	'39	B	H	10 1/16	22 1/8	1 3/4	7/32	.010	.010	Rear Two Service Brakes				
Eight-95	'39	B	H	11 1/16	23 15/16	1 3/4	7/32	.010	.010	Rear Two Service Brakes				
Eight-97	'39	B	H	11 1/16	23 15/16	1 3/4	7/32	.010	.010	Rear Two Service Brakes				
Six-90	'39	B	H	9 1/16	19	1 3/4	5/16	.010	.010	Rear Two Service Brakes				
Six-98	'39	B	H	9 1/16	19	1 3/4	5/16	.010	.010	Rear Two Service Brakes				
Six-41	'40	B	H	10 5/8	22 1/8	1 3/4	5/16	.010	.010	Rear Two Service Brakes				
Six-43	'40	B	H	11 5/8	23 15/16	1 3/4	7/32	.010	.010	Rear Two Service Brakes				
Six-48	'40	B	H	10 5/8	22 1/8	1 3/4	5/16	.010	.010	Rear Two Service Brakes				
Eight-44	'40	B	H	11 5/8	23 15/16	1 3/4	7/32	.010	.010	Rear Two Service Brakes				
Eight-47	'40	B	H	11 5/8	23 15/16	1 3/4	7/32	.010	.010	Rear Two Service Brakes				
Six-40	'40	B	H	9 5/8	19	1 3/4	5/16	.010	.010	Rear Two Service Brakes				
Six-10	'41	B	H	10	19 27/32	1 3/4	5/16	.010	.010	Rear Two Service Brakes				
Six-11, 18	'41	B	H	10	19 27/32	1 3/4	5/16	.010	.010	Rear Two Service Brakes				
Six-12	'41	B	H	10	21 19/32	1 3/4	5/16	.010	.010	Rear Two Service Brakes				
Eight	'41	B	H	11	21 19/32	1 3/4	7/32	.010	.010	Rear Two Service Brakes				
Sixes	'42	B	H	10	19 27/32	1 3/4	5/16	.010	.010	Rear Two Service Brakes				
Eights	'42	B	H	11	21 19/32	1 3/4	7/32	.010	.010	Rear Two Service Brakes				
Six-51, 52	'46	B	H	10	19 27/32	1 3/4	5/16	.010	.010	Rear Two Service Brakes				
Eight-53, 54	'46	B	H	11	21 19/32	1 3/4	7/32	.010	.010	Rear Two Service Brakes				
Six-171, 172	'47	B	H	10	19 27/32	1 3/4	5/16	.010	.010	Rear Two Service Brakes				
Eight-173, 174	'47	B	H	11	21 19/32	1 3/4	7/32	.010	.010	Rear Two Service Brakes				
Series 481	'48	B	Da	11	fr	(fr)	.177	.010	.010	11	20.87	1 3/4	.177	.010
Series 482	'48	B	Da	11	fr	(fr)	.177	.010	.010	11	20.87	1 3/4	.177	.010
Series 483	'48	B	Da	11	fr	(fr)	.177	.010	.010	11	20.87	1 3/4	.177	.010
Series 484	'48	B	Da	11	fr	(fr)	.177	.010	.010	11	20.87	1 3/4	.177	.010
HUPMOBILE														
6-922E	'39	L	H	10	20 7/8	2	3/16	.010	.005	Rear Two Service Brakes				
8-925H	'39	L	H	12	24 3/8	2	3/16	.010	.005	Rear Two Service Brakes				

(Continued on page 105)

For key to abbreviations see page 113

SEE MOTOR MAGAZINE FOR LATEST TECHNICAL INFORMATION
. . . THE MOST COMPLETE MECHANICAL SERVICE AVAILABLE IN CANADA



IT'S NEW-DIFFERENT-BETTER-BY ACTUAL TEST!

*CHRYCO Super BRAKE FLUID

—remains fluid and effective from 80 degrees *below* zero to 333 degrees above. Chryco Super Brake Fluid gives your brakes *extra* protection against wear and corrosion: It's the *only* brake fluid engineered by Chrysler—tested and approved for use in Chrysler-built vehicles.

GUARANTEED BY CHRYSLER CORPORATION ENGINEERS

*A trademark of the Chrysler Corporation of Canada, Limited.

ENGINEERED AND MANUFACTURED BY

CHRYSLER CORPORATION

OF CANADA, LIMITED

PARTS DIVISION WINDSOR, ONTARIO

AVAILABLE FROM YOUR NEAREST CHRYSLER - PLYMOUTH - FARGO OR DODGE - DESOTO DEALER

★ *Turn to page 88 for more information*

BRAKES AND BRAKE LININGS

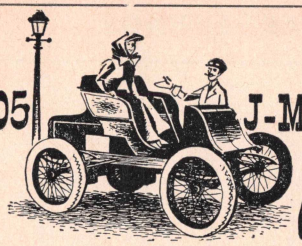
Make and Model	Year	Brake Mechanism—Make	Brake Mechanism—Type	Drum Diameter	Lining—Length per Wheel	Lining—Width	Lining—Thickness	Clearance—Toe	Clearance—Heel	Hand Brake—Drum Diameter	Lining—Length	Lining—Width	Lining—Thickness	Lining—Clearance (Minimum—Maximum
KAISER														
K-100	'47	B	H	10	m	2	13/64	.008	.008	Rear Two Service Brakes				
K-100-101-481-482	'48	B	H2	11	22 5/32	2	13/64	.010	.010	Rear Two Service Brakes				
LINCOLN														
Linc. & Linc. Cont.	'41	B	H	12	25.92	1 3/4	.210	.010	.010	Rear Two Service Brakes				
Linc. & Linc. Cont.	'47	B	H	12	24	1 3/4	.210	.010	.006	Rear Two Service Brakes				
Linc. & Linc. Cont.	'48	B	H	12	24	1 3/4	.210	.010	.006	Rear Two Service Brakes				
LA SALLE														
39-50	'39	B	H	12	25 7/8	2	5/16	.010	.010	Rear Two Service Brakes				
40-50 & 40-52	'40	B	H	12	25 7/8	2	5/16	.010	.010	Rear Two Service Brakes				
MERCURY														
Mercury	'39	O-L	H	12	y	1.75	.20	.010	.005	Rear Two Service Brakes				
Mercury	'40	O-L	H	12	y	1.75	.185	.010	.005	Rear Two Service Brakes				
Mercury	'41	O-L	H	12	23 5/32	1 3/4	.200	.010	.005	Rear Two Service Brakes				
Mercury	'42	O-L	H	12	23 5/32	1 3/4	.200	.010	.005	Rear Two Service Brakes				
114 & 114X	'46	O-L	H	12	Y	1.75	.20	.010	FA	Rear Two Service Brakes				
118	'46	O-L	H	12	Y	1.75	.20	.010	FA	Rear Two Service Brakes				
114, 114X & 118	'47	O-L	H	12	X	1 3/4	3/16	.010	FA	Rear Two Service Brakes				
114, 114X & 118	'48	O-L	H	12	X	1 3/4	3/16	.010	FA	Rear Two Service Brakes				
MONARCH														
Monarch	'46	O-L	H	12	Y	1.75	.20	.010	FA	Rear Two Service Brakes				
Monarch	'47	O-L	H	12	X	1 3/4	3/16	.010	FA	Rear Two Service Brakes				
Monarch	'48	O-L	H	12	X	1 3/4	3/16	.010	FA	Rear Two Service Brakes				
NASH														
Lafayette	'39	Wa	H	10 1/16	21	2	7/32	.010	.010	Rear Two Service Brakes				
Ambassador 6	'39	B	H	10 1/16	22	2	7/32	.010	.010	Rear Two Service Brakes				
Ambassador 8	'39	B	H	11 1/16	24	2 1/4	7/32	.010	.010	Rear Two Service Brakes				
Lafayette	'40	B	H	10	22	2	3/16	.010	.010	Rear Two Service Brakes				
Ambassador 6	'40	B	H	10	22	2	3/16	.010	.010	Rear Two Service Brakes				
Ambassador 8	'40	B	H	11 1/16	24	2 1/4	3/16	.010	.010	Rear Two Service Brakes				
Ambassador 600	'41	B	H	9	20 1/2	1 3/4	3/16	.010	.010	Rear Two Service Brakes				
Ambassador 6	'41	B	H	10	22	2	3/16	.010	.010	Rear Two Service Brakes				
Ambassador 8	'41	B	H	10	22	2	3/16	.010	.010	Rear Two Service Brakes				
4240—"6"	'42	B	H	9	20 1/2	1 3/4	3/16	.010	.010	Rear Two Service Brakes				
4260—"6"	'42	B	H	10	22	2	3/16	.010	.010	Rear Two Service Brakes				
4280—"8"	'42	B	H	10	22	2	3/16	.010	.010	Rear Two Service Brakes				
Series 4640	'46	B	H	9	20 1/2	1 3/4	3/16	.010	.010	Rear Two Service Brakes				
Series 4660	'46	B	H	10	22	2	3/16	.010	.010	Rear Two Service Brakes				
Series 4740	'47	B	H	9	20 1/2	1 3/4	3/16	.010	.010	Rear Two Service Brakes				
Series 4760	'47	B	H	10	22	2	3/16	.010	.010	Rear Two Service Brakes				
Series 4840	'48	B	H	9	bbb	2	5/32	.004	.008	Rear Two Service Brakes				
Series 4860	'48	B	H	10	bb	2	3/16	.004	.008	Rear Two Service Brakes				

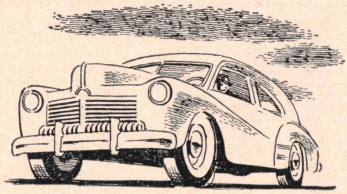
(Continued on page 107)

For key to abbreviations see page 113

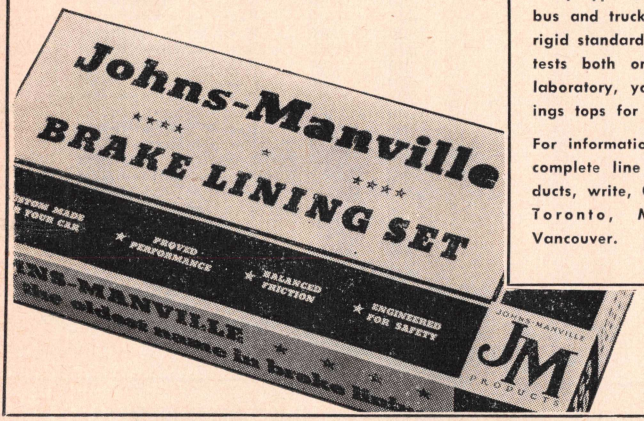
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BRAKES AND BRAKE LININGS

Make and Model	Year	Brake Mechanism—Make	Brake Mechanism—Type	Drum Diameter	Lining—Length per Wheel	Lining—Width	Lining—Thickness	Clearance—Toe	Clearance—Heel	Hand Brake—Drum Diameter	Lining—Length	Lining—Width	Lining—Thickness	Lining—Clearance (Minimum—Maximum)
OLDSMOBILE														
Six	'39	O	H	11	22 3/8	1 3/4	3/16	w	w	Rear Two Service Brakes				
35 00 & 36-00	'40	O	H	11	22 3/8	1 3/4	3/16	w	w	Rear Two Service Brakes				
Six	'41	O	H	11	22 3/8	1 1/4	3/16	w	w	Rear Two Service Brakes				
Eight	'41	B	H	11	21 5/16	2	3/16	.015	.015	Rear Two Service Brakes				
Six	'42	O	H	11	22 3/8	1 3/4	3/16	w	w	Rear Two Service Brakes				
Eight	'42	B	H	11	21 5/16	2	3/16	.015	.015	Rear Two Service Brakes				
Six	'46	B	H	11	21 5/16	i	3/16	.015	.015	Rear Two Service Brakes				
Eight	'46	B	H	11	21 5/16	z	3/16	.015	.015	Rear Two Service Brakes				
Six	'47	B	H	11	21 5/16	i	3/16	.015	.015	Rear Two Service Brakes				
Eight	'47	B	H	11	21 5/16	K	3/16	.015	.015	Rear Two Service Brakes				
Six	'48	B	H	11	21 5/16	i	3/16	.015	.015	Rear Two Service Brakes				
Eight	'48	B	H	11	21 5/16	K	3/16	.015	.015	Rear Two Service Brakes				
PACKARD														
Six	'39	B	H	11	24	1 3/4	3/16	.010	.010	Rear Two Service Brakes				
Eight	'39	B	H	12	26	1 3/4	3/16	.010	.010	Rear Two Service Brakes				
Super 8	'39	B	H	12	26	2 1/4	3/16	.010	.010	Rear Two Service Brakes				
Twelve	'39	B	Hv	14	30	2 3/4	1/4	.010	.010	Rear Two Service Brakes				
Six	'40	B	H	11	24	1 3/4	3/16	.010	.010	Rear Two Service Brakes				
Eight	'40	B	H	12	26	1 3/4	3/16	.010	.010	Rear Two Service Brakes				
Super 8	'40	B	H	12	26	2 1/2	3/16	.010	.010	Rear Two Service Brakes				
110	'41	B	H	11	22 3/8	1 3/4	3/16	.015	015	Rear Two Service Brakes				
120	'41	B	H	12	24 1/2	1 3/4	3/16	.015	.015	Rear Two Service Brakes				
Super 8	'41	B	H	12	24 1/2	2	3/16	.015	.015	Rear Two Service Brakes				
"6"—2000	'42	B	H	dd	aa	1 3/4	3/16	.015	.015	Rear Two Service Brakes				
"8"—2001	'42	B	H	12	24 1/2	1 3/4	3/16	.015	.015	Rear Two Service Brakes				
"Super 8"—2003, 6	'42	B	H	12	24 1/2	2 1/2	3/16	.015	.015	Rear Two Service Brakes				
2100	'46	—	H2	12	†	1 3/4	3/16	—	—	Rear Two Service Brakes				
2101 & 2111	'46	—	H2	12	††	1 3/4	3/16	—	—	Rear Two Service Brakes				
2103	'46	—	H2	12	††	z	3/16	—	—	Rear Two Service Brakes				
2126	'46	—	H2	12	†	2 1/2	3/16	—	—	Rear Two Service Brakes				
2100	'47	H2	12C	11C	××	1 3/4	3/16	—	—	Rear Two Service Brakes				
2101 & 2111	'47	H2	12C	12C	††	1 3/4	3/16	—	—	Rear Two Service Brakes				
2103, 2106 & 2126	'47	H2	12C	12C	+	Z	3/16	—	—	Rear Two Service Brakes				
2130	'47	H2	12C	12C	⊥	Z	3/16	—	—	Rear Two Service Brakes				
2201, 2211	'48	—	H2	12C	11 1/2	1 3/4	3/16	—	—	Rear Two Service Brakes				
2202, 2232	'48	—	H2	12C	11 1/2	1 3/4	3/16	—	—	Rear Two Service Brakes				
2206, 2233	'48	—	H2	12C	11 1/2	2 1/4	3/16	—	—	Rear Two Service Brakes				
PLYMOUTH														
Six P-7	'39	O	H	10	17 29/32	2	13/64	.012	.006	6	17 1/16	2	5/32	.015
De Luxe 6 P-8	'39	O	H	10	17 29/32	2	13/64	.012	.006	6	17 1/16	2	5/32	.015
Six P-9	'40	O	H	10	18	2	13/64	.012	.006	6	17 1/16	2	5/32	.015
De Luxe 6 P-10	'40	O	H	10	18	2	13/64	.012	.006	6	17 1/16	2	5/32	.015
Roadking P-11	'41	O	H	10	18	2	13/64	.012	.006	6	17 1/16	2	5/32	.015
De Luxe P-12	'41	O	H	10	18	2	13/64	.012	.006	6	17 1/16	2	5/32	.015
De Luxe P-14	'42	O	H	10	18	2	13/64	.012	.006	6	17 1/16	2	5/32	.015
P-15	'46	O-L	H	10	FR	2	13/64	.006	.006	6	16 11/16	2	5/32	.015-.020
P-15	'47	O-L	H	10	FR	2	13/64	.006	.006	6	16 11/16	2	5/32	.015-.020
P-15	'48	O-L	H	10	FR	2	13/64	.006	.006	6	16 11/16	2	5/32	.015-.020

(Continued on page 109)

For key to abbreviations see page 113

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ELIMINATE HYDRAULIC TROUBLES WITH MINTEX BRADBURY Rocket-Lift JACKS

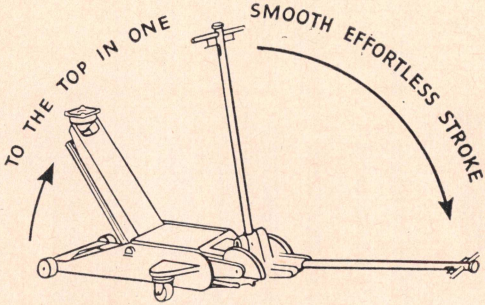


Show your customers how to enjoy more exclusive advantages than any other jack can give.

The Rocket-Lift Self Flushing Device, for instance. Here is an absolute exclusive double-purpose feature of the Mintex Bradbury Jack that (a) raises the crutch from the bottom to load contact in one smooth, effortless stroke, cutting operating time by 50% (b) at every stroke, drives oil through the valves at a tremendous velocity, cleaning dirty or sticky valves, which cause 90% of hydraulic faults.

Made in England by Joseph Bradbury & Sons Ltd. . . . distributed in Canada by "Federal" . . . Mintex Bradbury Jacks not only have every standard jack feature but give you, in addition, many advantages never before built into a jack.

"Conserve U.S. Dollars. Buy Mintex Bradbury Jacks Produced in England where your Canadian Dollar is valued at $1.17."



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THE FEDERAL BELTING & ASBESTOS CO. LIMITED
431 KING ST. WEST TORONTO.

BRAKES AND BRAKE LININGS

Make and Model	Year	Brake Mechanism—Make	Brake Mechanism—Type	Drum Diameter	Lining—Length per Wheel	Lining—Width	Lining—Thickness	Clearance—Toe	Clearance—Heel	Hand Brake—Drum Diameter	Lining—Length	Lining—Width	Lining—Thickness	Lining—Clearance (Minimum—Maximum)
PONTIAC														
Chieftain	'39	O	H	11	22 5/8	1 3/4	3/16	w	w	Rear Two Service Brakes				
Arrow	'39	O	H	11	22 5/8	1 3/4	3/16	w	w	Rear Two Service Brakes				
Special 25-00	'40	O	H	11	22 5/8	1 3/4	3/16	w	w	Rear Two Service Brakes				
Arrow	'40	O	H	11	22 5/8	1 3/4	3/16	w	w	Rear Two Service Brakes				
Sixes	'41	O	H	11	22 5/8	1 3/4	3/16	w	w	Rear Two Service Brakes				
Sixes	'42	O	H	11	22 5/8	1 3/4	3/16	w	w	Rear Two Service Brakes				
Six	'46	O	H	11	22 5/8	1 3/4	3/16	w	w	Rear Two Service Brakes				
Eight	'46	O	H	11	21 3/16	i	3/16	.015	.015	Rear Two Service Brakes				
Six & Eight	'47	O	H	11	21 3/16	i	3/16	.015	.015	Rear Two Service Brakes				
Six	'48	O	H	11	22 5/8	1 3/4	3/16	w	w	Rear Two Service Brakes				
Eight	'48	O	H	11	21 3/16	i	3/16	.015	.015	Rear Two Service Brakes				

N.B. Fleetleaders (1941-2-6-7-8) are 20 and 22 Series; Torpedo 6 & 8 (1941-2-6-7-8) are 25 and 27 Series respectively. Streamliner 6 & 8 (1941-2-6-7-8) are 26 and 28 Series respectively; Streamliner 6 & 8 (1948) not distributed in Cnnada.

(Continued on page 111)

For key to abbreviations see page 113



and CLUTCH LININGS

MINTEX BRAKE RELINING EQUIPMENT

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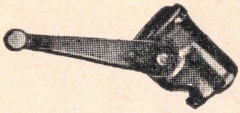
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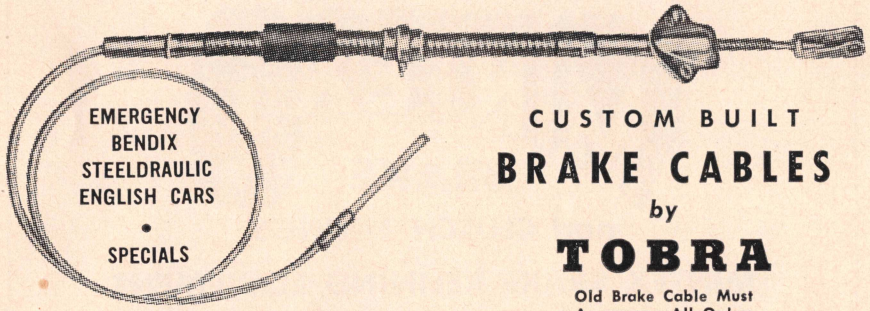
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BRAKES AND BRAKE LININGS

Make and Model	Year	Brake Mechanism—Make	Brake Mechanism—Type	Drum Diameter	Lining—Length per Wheel	Lining—Width	Lining—Thickness	Clearance—Toe	Clearance—Heel	Hand Brake—Drum Diameter	Lining—Length	Lining—Width	Lining—Thickness	Lining—Clearance (Minimum—Maximum)
STUDEBAKER														
Commander 6 (9A)	'39	L	H	11	19 11/16	2	3/16	.010	.005	Rear Two Service Brakes				
President 8 (5C)	'39	L	H	11	19 11/16	2 1/4	3/16	.010	.005	Rear Two Service Brakes				
Champion "G"	'39	L	H	9	17 3/4	1 3/4	3/16	.010	.005	Rear Two Service Brakes				
Commander 6 (10A)	'40	L	H	11	19 11/16	2	3/16	.010	.005	Rear Two Service Brakes				
President 8 (6C)	'40	L	H	11	19 11/16	2 1/4	3/16	.010	.005	Rear Two Service Brakes				
Champion 2-G	'40	L	H	9	17 3/4	1 3/4	3/16	.010	.005	Rear Two Service Brakes				
Commander 6-11A	'41	L	H	11	19 1/16	2	3/16	.010	.005	Rear Two Service Brakes				
President 8-7C	'41	L	H	11	19 11/16	2 1/4	3/16	.010	.005	Rear Two Service Brakes				
Champion 6-3G	'41	L	H	9	17 3/4	1 3/4	3/16	.010	.005	Rear Two Service Brakes				
Commander 6-12A	'42	Wa	H	11	19 11/16	2	3/16	.010	.005	Rear Two Service Brakes				
President 8-8C	'42	Wa	H	11	19 11/16	2 1/4	3/16	.010	.005	Rear Two Service Brakes				
Champion 6-4G	'42	Wa	H	9	17 3/4	1 3/4	3/16	.010	.005	Rear Two Service Brakes				
Skyway, 5G	'46	Wa	H	9	17 3/4	1 3/4	3/16	.010	.005	Rear Two Service Brakes				
Champion 6-G	'47	Wa	H	9	18.5	2	3/16	SC	SC	Rear Two Service Brakes				
Commander 14A	'47	Wa	H	11	22 1/4	2	3/16	SC	SC	Rear Two Service Brakes				
Champion 7G	'48	W	H	9	18.5	2	3/16	SC	SC	Rear Two Service Brakes				
Commander 15A	'48	W	H	11	22 1/4	2	3/16	SC	SC	Rear Two Service Brakes				

(Continued on page 113)

For key to abbreviations see page 113

To Make Satisfied Customers *Instal—*

Autobestos

★ BRAKE LINING ★

AUTOBESTOS Brake Linings give smooth, positive braking action. Satisfied customers are telling others. Specify AUTOBESTOS—the best!

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BRAKES AND BRAKE LININGS

Make and Model	Year	Brake Mechanism—Make	Brake Mechanism—Type	Drum Diameter	Lining—Length per Wheel	Lining—Width	Lining—Thickness	Clearance—Toe	Clearance—Heel	Hand Brake—Drum Diameter	Lining—Length	Lining—Width	Lining—Thickness	Lining—Clearance (Minimum—Maximum)
WILLYS														
Four-48	'39	B	M	9	19 3/16	1 3/4	3/16	.010	.010	All Four Service Brakes				
Overland 39	'39	W-L	H	9	18 15/16	1 3/4	3/16	.010	.010	Rear Two Service Brakes				
Willys 440	'40	B	H	9	18 5/8	1 3/4	3/16	.008	.004	Rear Two Service Brakes				
Willys Americar	'41	B	H	9	18 5/8	1 3/4	3/16	.008	.005	Rear Two Service Brakes				
Willys Americar	'42	B	H	9	16 53/64	1 3/4	3/16	.008	.005	Rear Two Service Brakes				
CJ-2A Uni Jeep	'45	B	H	9	j	1 3/4	.210	—	—	8	16 1/4	1 3/4	.210	—
CJ-2A Uni. Jeep	'47	B	H	9	j	1 3/4	.210	.008	.005	8	16 1/4	1 3/4	.210	—
CJ-2A	'48	B	H	9	16 53/64	1 3/4	.206	—	—	Rear Two Service Brakes				
2WD, 4WD	'48	B	H	11	22 1/16	2	.182	—	—	Rear Two Service Brakes				
4-63, 6-63	'48	B	H	10	19	1 3/4	.182	—	—	Rear Two Service Brakes				

ABBREVIATIONS

A=C-38S—6″.
AA=C-38S—16 11/16″.
a=C-38S—2″.
aa=Front 24 1/2″; rear 22 5/8″.
B=Bendix.
b=Primary 9 15/16″; secondary 12 3/4″.
C=Centrifuse.
(C)=Crosley.
cc=Primary 10″; secondary 12 15/16″.
d=Left front wheel 1 7/8″; other wheels 2 1/2″.
Da=Duo-automatic.
dd=Front 12″; rear 11″.
F=Models 60, 61, 62—front 2 1/4″; rear 2″.
Model 75—front 2 1/4″; rear 2 1/2″.
FA=Floating anchors, self adjusting.
(fr)=Front 2 1/4 inches, rear 1 3/4 inches.
fr=Front 21.32 inches, rear 20.87 inches.
FR=Front wheels 21″; rear 18 1/2″.
g=H serial numbers Bendix; L serial numbers Wagner.
gg=Front 2 1/4″; rear 2″.
h=Front forward shoes 12 1/4″; all others 15″.
H=Hydraulic.
H2=Hydraulic, two shoes.
Hv=Hydraulic with vacuum unit.
i=Front 2″; rear 1 3/4″.
J=Forward shoe 10 7/8″; reverse shoe 6 39/64″.
j=Forward shoe 10 3/32; reverse 6 39/64
K=Front 2 1/4″; rear 2″.
L=Lockheed.
M=Moulded.
m=Front 12 1/4″; rear 10 1/32″.
M=Mechanical.
O=Own.
O-L=Own, Lockheed type.
P=Width 2″; thickness 13/64″. Front wheels–12 9/16″; Rear wheels–12 9/16″ (front shoe) 9 5/8 (rear shoe).
p=Front 25 1/8″; rear 22 3/16″.
q=Front wheel, both shoes .006″; rear wheel, front shoe .006″, rear .007″.
RR=Front wheels 23″; rear 20 3/8″.
RS=Front wheels 25 1/8″; rear 22 3/16″.
SC=Self-centering.
Va=Various
Wa=Wagner.
W-L=Willys-Lockheed
w=Tighten to slight drag, then back off four notches.
X=Forward shoe 13 1/8″; rear 10 3/32″.
Y=Primary 13.625″; secondary 10.3125.″
y=Primary 13.18″; secondary 10.1″.
Z=Primary, front 2 1/4″; rear 2″. Secondary, front 2 1/4″; rear 2″.
z=Front wheels 2 1/4″; rear wheels 2″.
†=Primary, front 11 1/2″; rear 10 5/8″
Secondary, front 13″; rear 12″.
††=Primary 11 1/2″; secondary 13″.
*=With Simplimatic transmission 20 1/8″.
**=Models 60, 61, 62—Front 2″; rear 2 1/4″.
Model 75—front 2 1/2″; rear 2 1/4″.
@=Plus or minus .005″.
XX=Primary 10 5/8″; secondary 12″.
++=Primary, front 11 1/2″; rear 10 5/8″.
Secondary, front 13″; rear 12″.

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PRECISION MEASUREMENT

More than ever before in the history of the automotive industry mechanics must adhere to manufacturer's specifications to get customer satisfaction.

AUTOMOBILE and equipment manufacturers set up definite service standards for their products. These standards must be maintained by the mechanic when performing service operations if the vehicle is expected to again deliver the original power and economy built into it by the manufacturer.

When applying established service standards and specifications to tune-up and other maintenance service operations, the mechanic must thoroughly understand the meaning of the terms used in the service manuals. Adjustment must be accurately made because the close fit between certain operating parts and the prescribed clearances of other parts must be maintained in service. And, a mechanic's work is no more accurate than his measurements.

Where "limits" are quoted in the service standards, this term means the extreme sizes, high or low. Tolerance is the difference between high and low limits. Allowance is the difference in dimensions to allow for various fits. Clearance is the space allowed between certain working parts—*valve clearance* for example.

Thickness or "Feeler" Gauges

Accurate measurements cannot be made with crimped or bent feeler gauges. In fact, it requires considerable experience to be able to take exact measurement with a thickness gauge, for the accuracy depends to a large extent upon the ability of the mechanic to determine by feel when there is the correct tension on the blade. *Don't guess* at the size of feeler gauges—check the size with micrometers when in doubt. For best results, new feeler stock is recommended for each valve job. Use wire type feeler gauges for spark plug gaps and contact breaker point setting. As with any precision tool, it is essential that these gauges be kept clean and free of all foreign matter.

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. . . THE MOST COMPLETE MECHANICAL SERVICE AVAILABLE IN CANADA

VALVES AND VALVE TIMING

Make and Model	Year	Angle of Seat—Intake	Stem to Guide Clearance—Intake (Min.-Max.)	Angle of Seat—Exhaust	Stem to Guide Clearance—Exhaust (Min.-Max)	Tappet Clearance—Intake (Min.-Max.)	Tappet Clearance—Exhaust (Min.-Max)	Clearance for Valve Timing Intake	Clearance for Valve Timing Exhaust	Valve Timing—Intake Opens (Degrees)	Valve Timing—Exhaust Closes (Degrees)
AUSTIN (English)											
A-40	'48	45	—	45	—	.015	.015	—	—	5B	—
BUICK											
44 Special	'39	45	.0015	45	.0021	.015H	.015H	.004	—	13B	22A
46 Century	'39	45	.0015	45	.0021	.015H	.015H	.004	—	14B	25A
48 Roadmaster	'39	45	.0015	45	.0021	.015H	.015H	.004	—	14B	25A
49 Limited	'39	45	.0015	45	.0021	.015H	.015H	.004	—	14B	25A
44-00 & 45-00	'40	45	.0015	45	.0021	.015H	.015H	.004	—	13B	22A
47 Roadmaster	'40	45	.0015	45	.0021	.015H	.015H	.004	—	14B	25A
Special 44; Super 45	'41	45	.0015	45	.0021	.015H	.015H	.004	—	13B	22A
Series 46, 47, 49	'41	45	.0015	45	.0021	.015H	.015H	.004	—	14B	25A
Series 44	'42	45	.0015	45	.0021	.015H	.015H	.004	—	13B	22A
Series 46	'42	45	.0015	45	.0021	.015H	.015H	.004	—	14B	25A
Series 50	'46	45	.0020	45	.0020	.015H	.015H	.015	—	13B	22A
Series 70	'46	45	.0020	45	.0020	.015H	.015H	.015	—	14B	25A
Series 40	'47	45	.0015-.0035	45	.0021-.0039	.015H	.015H	.015	.015	13B	22A
Series 50	'47	45	.0015-.0035	45	.0021-.0039	.015H	.015H	.015	.015	13B	22A
Series 70	'47	45	.0015-.0035	45	.0021-.0039	.015H	.015H	.015	.015	14B	25A
Series 40, 50, 70	'48	(Not distributed in Canada)									
CADILLAC											
V-8 61	'39	45	.0010	45	.0020	Automatic Take-up			—	TDC	10A
V-8 60S, V-8 75	'39	45	.0010	45	.0020	Automatic Take-up			—	TDC	10A
V-16 90	'39	45	.0023	45	.0033	Automatic Take-up			—	8B	12A
V-8 62	'40	45	.0023	45	.0033	Automatic Take-up			—	TDC	10A
V-8 60S, V-8 75	'40	45	.0023	45	.0033	Automatic Take-up			—	TDC	10A
All Series	'41	45	.0023	45	.0033	Automatic Take-up			—	TDC	10A
All Series	'42	45	.0023	45	.0033	Automatic Take-up			—	TDC	10A
"V" Eight	'46	45	.0023	45	.0033	Automatic Take-up			—	TDC	10A
Eight	'47	45	.0005-.0025	45	.0015-.0035	Automatic Take-up			—	TDC	10A
V-8	'48	(Not distributed in Canada)									
CHEVROLET											
Six	'39	30	.0010	30	.0020	.006H	.013H	a	a	9B	1A
Six	'40	30	.0010	30	.0020	.006H	.013H	a	a	3V	5A
Six	'41	30	.0010	30	.0020	.006H	.013H	a	a	3B	5A
Six	'42	30	.0010	30	.0020	.006H	.013H	a	a	3B	5A
Six	'46	30	.0010	38	.0020	.006-.008@	.103-.015@	a	a	3B	5A
Six	'47	30	.001-.0027	30	.002-.0037	.006-.008@	.013-.015@	a	a	3B	5A
Six	'48	30	.001-.0027	30	.002-.0037	.006@	.013@	a	a	1A	9A
CHRYSLER											
Six C-22	'39	45	.0010	45	.0010	.008H	.010H	.014	—	8B	2A
De Luxe 8 C-23	'39	45	.0010	45	.0010	.008H	.010H	.014	—	6B	12A
Cus. Imp. C-24	'39	45	.0010	45	.0010	.008H	.010H	.014	—	6B	12A
Six C-25	'40	45	.0010	45	.0010	.008H	.010H	.014	—	12B	6A
De Luxe 8 C-26	'40	4	5.0010	45	.0010	.008H	.010H	.011	.014	6B	12A
Cus. Imp. C-27	'40	45	.0010	45	.0010	.008H	.010H	.011	.014	6B	12A
Royal 6 C-28	'41	45	.0015	45	.0015	.008H	.010H	.014	—	12B	6A
New York. 8 C-30	'41	45	.0015	45	.0015	.008H	.010H	.011	.014	6B	12A

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. . . THE MOST COMPLETE MECHANICAL SERVICE AVAILABLE IN CANADA

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★ *Turn to page 88 for more information*

VALVES AND VALVE TIMING

Make and Model	Year	Angle of Seat—Intake	Stem to Guide Clearance—Intake (Min.-Max.)	Angle of Seat—Exhaust	Stem to Guide Clearance—Exhaust (Min.-Max)	Tappet Clearance—Intake (Min.-Max.)	Tappet Clearance—Exhaust (Min.-Max)	Clearance for Valve Timing Intake	Clearance for Valve Timing Exhaust	Valve Timing—Intake Opens (Degrees)	Valve Timing—Exhaust Closes (Degrees)
CHRYSLER—Continued											
Crown Imp. C-33	'41	45	.0015	45	.0015	.008H	.010H	.011	.014	6B	12A
Royal 6 C-34	'42	45	.0015	45	.0015	.008H	.010H	.014	—	12B	6A
New York. 8 C-36	'42	45	.0015	45	.0015	.008H	.010H	.011	.014	6B	12A
Crown Imp. C-37	'42	45	.0015	45	.0015	.008H	.010H	.011	.014	6B	12A
C-38W, C-38S	'46	45	.001-.003	45	.003-.005	.008H	.010H	.014C	—	12B	6A
C-38W, C-38S	'47	45	.001-.003	45	.003-.005	.008H	.010H	.014C	.014C	12B	6A
C-39, C-40	'47	45	.0015-.0035	45	.002-.004	.008H	.010H	.014C	.014C	12B	6A
C-38W, C-38S	'48	45	.001-.003	45	.003-.005	.008H	.010H	.014C	.014C	12B	6A
C-39, C-40	'48	45	.0015-.0035	45	.002-.004	.008H	.010H	.014C	.014C	12B	6A
CROSLEY											
Four	'48	45	.0015-.003	45	.0025-.0040	.004-.005C	.006-.007C	.004-.005	.006-.007	5B	5A
DE SOTO											
Six S-6	'39	45	.0010	45	.0010	.008H	.010H	.014	—	8B	2A
Six S-7	'40	45	.0010	45	.0010	.008H	.010H	.014	—	12B	6A
Six S-8	'41	45	.0015	45	.0015	.008H	.010H	.014	—	12B	6A
Six S-10	'42	45	.0015	45	.0015	.008H	.010H	.014	—	12B	6A
S-11	'46	45	.001-.003	45	.003-.005	.008H	.010H	.014C	—	12B	6A
S-11	'47	45	.001-.003	45	.003-.005	.008H	.010H	.014C	.014C	12B	6A
S-11	'48	45	.001-.003	45	.003-.005	.008H	.010H	.014C	.014C	12B	6A
DODGE											
Six D-12,D-13	'39	45	.0020	45	.0020	.008H**	.010H	.014	—	8B	2A
Big 6 D-11	'39	45	.0020	45	.0010	.008H	.010H	.014	—	8B	2A
Six D-14, -15, -16	'40	45	.0020	45	.0020	.008H	.010H	.014	—	12B	6A
Six D-19, -20, -21	'41	45	.0010	45	.0030	.008H	.010H	.014	—	12B	6A
Six D-22, D-23	'42	45	.0015	45	.0015	.008H	.010H	.014	—	12B	6A
D-25	'46	45	.001-.003	45	.003-.005	.008H	.010H	.014C	—	12B	6A
D-24	'46	45	.001-.003	45	.003-.005	.008H	.010H	.014C	—	12B	6A
D-25	'47	45	.001-.003	45	.003-.005	.008H	.010H	.014C	.014C	12B	6A
D-24	'47	45	.001-.003	45	.003-.005	.008H	.010H	.014C	.014C	12B	6A
D-25	'48	45	.001-.003	45	.003-.005	.008H	.010H	.014C	.014C	12B	6A
D-24	'48	45	.001-.003	45	.003-.005	.008H	.010H	.014C	.014C	12B	6A
FORD											
V-8 85	'39	45	.0025	45	.0025	.0105	.0105	.0125	—	TDC	6½A
V-8 85	'40	45	.0025	45	.0025	.0105	.0105	.0125	—	TDC	6A
V-8 85	'41	45	.0025	45	.0025	.0125-.0135	.0125-.0135	.015	—	TDC	6A
V-8 85	'42	45	.0025	45	.0025	.0125-.0135	.0125-.0135	.010-.012	.014-.016	TDC	6A
De Luxe	'46	45	.0025	45	.0025	.011C	.015C	—	—	TDC	6A
Super De Luxe	'46	45	.0025	45	.0025	.011C	.015C	—	—	TDC	6A
De L. & Super De L.	'47	45	.0025	45	.0025	.010-.012C	.014-.016C	.010-.012	.014-.016	TDC	6A
De L. & Super De L.	'48	45	.0025	45	.0025	.010-.012C	.014-.016C	.010-.012	.014-.016	TDC	6A
FRAZER											
F-47	'47	30	.0008-.0026	45	.0027-.0045	.014	.014	.014	.014	10B	10A
F-47-47C-485-486	'48	30	.0008-.0026	45	.0032-.0050	TC	.014C	TC	.014	10B	10A

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VALVES AND VALVE TIMING

Make and Model	Year	Angle of Seat—Intake	Stem to Guide Clearance—Intake (Min.-Max.)	Angle of Seat—Exhaust	Stem to Guide Clearance—Exhaust (Min.-Max)	Tappet Clearance—Intake (Min.-Max.)	Tappet Clearance—Exhaust (Min.-Max)	Clearance for Valve Timing Intake	Clearance for Valve Timing Exhaust	Valve Timing—Intake Opens (Degrees)	Valve Timing—Exhaust Closes (Degrees)
GRAHAM											
Six-96	'39	30	.0020	45	.0030	.010H	.010H	.012	—	4½B	4½A
Six-97	'39	30	.0020	45	.0030	.010H	.010H	.012	—	4½B	4½A
Six-107	'40	30	.0020	45	.0030	.010H	.010H	.012	—	4½B	4½A
Six-108	'40	30	.0020	45	.0030	.010H	.010H	.012	—	4½B	4½A
HUDSON											
Six-93	'39	45	.0015	45	.0030	.006H	.008H	.010	—	10⅜B	18⅜A
Six-91	'39	45	.0015	45	.0030	.006H	.008H	.010	—	10⅜B	18⅜A
Six-92	'39	45	.0015	45	.0030	.006H	.008H	.010	—	10⅜B	18⅜A
Eight-95	'39	45	.0015	45	.0030	.006H	.008H	.010	—	10⅜B	18⅜B
Eight-97	'39	45	.0015	45	.0030	.006H	.008H	.010	—	10⅜B	18⅜A
Six-90	'39	45	.0015	45	.0030	.006H	.008H	.010	—	10⅜B	18⅜A
Six-98	'39	45	.0015	45	.0030	.006H	.008H	.010	—	10⅜B	18⅜A
Six-41	'40	45	.0015	45	.0030	.006H	.008H	.010	—	10⅜B	18⅜A
Six-43	'40	45	.0015	45	.0030	.006H	.008H	.010	—	10⅜B	18⅜A
Six-48	'40	45	.0015	45	.0030	.006H	.008H	.010	—	10⅜B	18⅜A
Eight-44	'40	45	.0015	45	.0030	.006H	.008H	.010	—	10⅜B	18⅜A
Eight-47	'40	45	.0015	45	.0030	.006H	.008H	.010	—	10⅜B	18⅜A
Six-40	'40	45	.0015	45	.0030	.006H	.008H	.010	—	10⅜B	18⅜A
Six-10****	'41	45	.0015	45	.0030	.006H	.008H	.010	—	10⅜B	18⅜A
Six 10***	'41	45	.0015	45	.0030	.010H	.012H	.010	—	28½B	32⅜A
Six 11, 12, 18	'41	45	.0015	45	.0030	.006H	.008H	.010	—	10⅜B	18¾A
Eight	'41	45	.0015	45	.0030	.006H	.008H	.010	—	10⅜B	18¾A
"6"-20C, 20Sp.	'42	45	.0015	45	.0030	.010H	.012H	.010	—	27½B	32⅛A
"6"-20P, 21, 22, 28	'42	45	.0015	45	.0030	.006H	.008H	.010	—	10⅜B	18⅜A
Eights	'42	45	.0015	45	.0030	.006H	.008H	.010	—	10⅜B	18¾A
Six-51, 52	'46	45	.0015	45	.0030	.010H	.012H	.012	.014	10.6B	18.6A
Eight-53, 54	'46	45	.0015	45	.0030	.010H	.012H	.008	.010	10.6B	18.6A
Six-171, 172	'47	45	.0015-.003	45	.003-.005	.010H	.012H	.012	.014	10.6B	18.6A
Eight-173, 174	'47	45	.0015-.003	45	.003-.005	.006H	.008H	.008	.010	10.6B	18.6A
Series 481	'48	45	.0015-.003	45	.002-.004	.010	.012	.010	.012	7°18′B	7°42′A
Series 482	'48	45	.0015-.003	45	.002-.004	.010	.012	.010	.012	7°18′B	7°42′A
Series 483	'48	45	.0015-.003	45	.003-.005	.006	.008	.006	.008	10°40′B	18°14′A
Series 484	'48	45	.0015-.003	45	.003-.005	.006	.008	.006	.008	10°40′B	18°14′A
HUPMOBILE											
8-922E	'39	45	.0010	45	.0010	..010	.013	hh	—	2B	3A
8-925H	'39	45	.0015	45	.0015	007	.014	.010	.017	1A	3A
KAISER											
K-100	'47	30	.0008-.0026	45	.0027-.0045	.014	.014	.014	.014	10B	10A
K-100-101-481-482	'48	30	.0008-.0026	45	.0032-.0050	TC	.014	TC	.014	10B	10A
LINCOLN											
Continental	'41	45	.0025	45	.0025	Hydraulic Tappets			—	10.5B	8A
Linc. & Linc. Cont.	'47	45	.0015-.0035	45	.0015-.0035	Automatic Take-up			—	10.4B	8.1A
Linc. & Linc. Cont.	'48	45	.0015-.0035	45	.0015-.0035	Automatic Take-up			—	10.4B	8.1A

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VALVES AND VALVE TIMING

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LA SALLE											
39-50	'39	45	.0010	45	.0020	Automatic Take-up			—	TDC	10A
40-40 and 40-52	'40	45	.0023	45	.0033	Automatic Take-up			—	TDC	10A
MERCURY											
Mercury	'39	45	.0035	45	.0025	.0105	.0105	.0125	—	TDC	6A
Mercury	'40	45	.0025	45	.0025	.0105	.0105	.0125	—	TDC	6A
Mercury	'41	45	.0025	45	.0025	.0125-.0135	.0125-.0135	.015	—	TDC	6A
Mercury	'42	45	.0025	45	.0025	.0125-.0135	.0125-.0135	.010-.012	.014-.016	TDC	6A
114 & 114X	'46	45	.0025	45	.0025	.011C	.015C	—	—	TDC	6A
118	'46	45	.0025	45	.0025	.011C	.015C	—	—	TDC	6A
114, 114X & 118	'47	45	.0025	45	.0025	.010-.012C	.014-.016C	.010-.012	.014-.016	TDC	6A
114, 114X & 118	'48	45	.0025	45	.0025	.010-.012C	.014-.016C	.010-.012	.014-.016	TDC	6A
MONARCH											
Monarch	'46	45	.0025	45	.0025	.011C	.015C	—	—	TDC	6A
Monarch	'47	45	.0025	45	.0025	.010-.012C	.014-.016C	.010-.012	.014-.016	TDC	6A
Monarch	'48	45	.0025	45	.0025	.010-.012C	.014-.016C	.010-.012	.014-.016	TDC	6A
NASH											
Lafayette	'39	45	.0020	45	.0020	.015H	.015H	.015	—	21½B	36½A
Ambassador 6	'39	45	.0020	45	.0020	.015H	.015H	.015	—	24½B	5A
Ambassador 8	'39	45	.0020	45	.0020	.015H	.015H	.015	—	20B	10A
Lafayette	'40	45	.0020	45	.0020	.015H	.015H	.015	—	—	—
Ambassador 6	'40	45	.0020	45	.0020	.015H	.015H	.015	—	—	—
Ambassador 8	'40	45	.0020	45	.0020	.015H	.015H	.015	—	—	—
Ambassador 600	'41	45	.0020	45	.0020	.015H	.015H	.019	—	—	—
Ambassador 6	'41	45	.0020	45	.0020	.015H	.015H	.015	—	—	—
Ambassador 8	'41	45	.0020	45	.0020	.015H	.015H	.015	—	—	—
4240-"6"	'42	45	.0020	45	.0020	.015H	.015H	.019	—	19B	23A
4260-"6"	'42	45	.0020	45	.0020	.015H	.015H	.015	—	14B	31A
4280-"8"	'42	45	.0020	45	.0020	.015H	.015H	.015	—	14B	31A
Series 4640	'46	45	.0020	45	.0020	.015H	.015H	.019	—	—	—
Series 4660	'46	44	.0020	44	.0020	.015H	.015H	.008	—	—	—
Series 4740	'47	44	.002-.003	44	.002-.003	.015H	.015H	Varies with cams		—	—
Series 4760	'47	44	.002-.004	44	.002-.004	.015H	.015H	Varies with cams		—	—
Series 4840	'48	45	.0025	45	.0045	.015	.015	.020	.020	19B	23A
Series 4860	'48	45	.0025	45	.0045	.015	.018	.020	.022	11.6A	5A
OLDSMOBILE											
Six	'39	30	.0018	45	.0025	.008H	.011H	.008	.011	5B	5A
35-00 & 36-00	'40	30	.0018	45	.0025	.008H	.011H	.006-.008	—	5B	5A
Six	'41	30	.0018	45	.0025	.008H	.011H	.012	.015	5B	5A
Eight	'41	30	.0018	45	.0025	.008H	.011H	.012	.016	DC	10A
Six	'42	30	.0018	45	.0025	.008H	.011H	.012	.015	5B	5A
Eight	'42	30	.0018	45	.0025	.008H	.011H	.012	.016	DC	10A
Six	'46	30	.0018	45	.0025	.008H	.011H	.012	—	5B	5A
Eight	'46	30	.0018	45	.0025	.008H	.011H	.012	—	TDC	10A
Six	'47	30	.0017-.0037	45	.0024-.0042	.008H	.011H	.012	.015	5B	5A
Eight	'47	30	.0017-.0037	45	.0024-.0042	.008H	.011H	.012	.015	TDC	10A
Six	'48	30	.0017-.0037	45	.0024-.0042	.008H	.011H	.012	.015	5B	5A
Eight	'48	30	.0017-.0037	45	.0024-.0042	.008H	.011H	.012	.015	TDC	10A

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Make and Model	Year	Angle of Seat—Intake	Stem to Guide Clearance—Intake (Min.-Max.)	Angle of Seat—Exhaust	Stem to Guide Clearance—Exhaust (Min.-Max)	Tappet Clearance—Intake (Min.-Max.)	Tappet Clearance—Exhaust (Min.-Max)	Clearance for Valve Timing Intake	Clearance for Valve Timing Exhaust	Valve Timing—Intake Opens (Degrees)	Valve Timing—Exhaust Closes (Degrees)
PACKARD											
Six	'39	30	.0020	45	.0040	.007H	.010H	.013	—	1B	5A
Eight	'39	30	.0020	45	.0040	.007H	.010H	.013	—	1B	5A
Super 8	'39	45	.0030	45	.0045	.006H	.008H	.005	—	26B	34A
Twelve	'39	45	.0025	45	.0050	Automatic Take-up		—	—	TDC	10A
Six	'40	30	.0020	45	.0040	.007H	.010H	.008	.015	1B	5A
Eight	'40	30	.0020	45	.0040	.007H	.010H	.008	.015	1B	5A
Super 8	'40	30	.0020	45	.0040	Automatic Take-up		—	—	4B	10A
110	'41	30	.0025	45	.0045	.007H	.010H	.0125	.015	1B	5A
120	'41	30	.0025	45	.0045	.007H	.010H	.0125	.015	1B	5A
Super 8	'41	30	.0025	45	.0045	Automatic Take-up		—	—	4B	10A
"6"-2000	'42	30	.0025	45	.0045	.007H	.010H	.0125	.015	1B	5A
"8"-2001	'42	30	.0025	45	.0045	.007H	.010H	.0125	.015	1B	5A
Super 8-2003, 6	'42	30	.0020	45	.0040	Automatic Take-up		—	—	4B	10A
2100	'46	30	.0025	45	.0045	.007H	.010	.0125	.015	1B	5A
2101 & 2111	'46	30	.0025	45	.0045	.007H	.010	.0125	.015	1B	5A
2103 & 2126	'46	30	.0020	45	.0040	—	—	—	—	4B	10A
2100 & 2130	'47	30	.0025	45	.0045	.007H	.010H	.0125	.015	1B	5A
2101 & 2111	'47	30	.0025	45	.0045	.007H	.010H	.0125	.015	1B	5A
2103, 2106 & 2126	'47	30	.002	45	.004	Automatic Take-up		NU	NU	4B	10A
2201, 2211	'48	30	.002	45	.004	.007@	010@	.0125	.015	10B	5A
2202, 2232	'48	30	.002	45	.004	.007@	.010@	.0125	.015	10B	5A
2206, 2233	'48	30	.002	45	.004	Automatic Take-up		NU	NU	4B	10A
PLYMOUTH											
Six P-7, P-8	'39	45	.0020	45	.0020	.008H	.010H	.014	—	8B	2A
Six P-9, P-10	'40	45	.0020	45	.0020	.008H	.010H	.014	—	12B	6A
Six P-11, P-12	'41	45	.0010	45	.0030	.008H	.010H	.014	—	12B	6A
De Luxe P-14	'42	45	.0015	45	.0015	.008H	.010H	.014	—	12B	6A
P-15	'46	45	.001-.003	45	001-.003	.008H	.010H	.014C	—	12B	6A
P-15	'47	45	.001-.003	45	.003-.005	.008H	.010H	.014C	.014C	12B	6A
P-15	'48	45	.001-.003	45	.003-.005	.008H	.010H	.014C	.014C	12B	6A
PONTIAC											
Chieftain	'39	30	.0010	30	.0020	.006H	.013H	.006	.013	9B	1B
Arrow	'39	30	.0010	30	.0020	.006H	.013H	.006	.013	9B	1B
Special 25-00	'40	30	.0030	45	.0030	.012H	.012H	.015	—	5B	5A
Arrow	'40	30	.0010	30	.0020	.006H	.013H	.006	.013	3B	5A
Sixes	'41	30	.0006	45	.0006	.012H	.012H	.015	—	5B	5A
Sixes	'42	30	.0006	45	.0006	.012H	.012H	.015	—	5B	5A
Six	'46	30	.0006	45	.0006	.011-.013H	.011-.013H	.012	—	5B	5A
Eight	'46	30	.0006	45	.0006	.011-.013H	.011-.013H	.012	—	5B	5A
Six	'47	30	.0006	45	.0006	.011-.013H	.011-.013H	.015	—	5B	5A
Eight	'47	30	.0006	45	.0006	.011-.013H	.011-.013H	.015	—	5B	5A
Six	'48	30	.0006	45	.0006	.011-.013H	.011-.013H	.015	—	5B	5A
Eight	'48	30	.0006	45	.0006	.011-.013H	.011-.013H	.015	—	5B	5A

N.B. Fleetleaders (1941-2-6-7-8) are 20 and 22 Series; Torpedo 6 & 8 (1941-2-6-7-8) are 25 and 27 Series respectively. Streamliner 6 & 8 (1941-2-6-7-8) are 26 and 28 Series respectively; Streamliner 6 & 8 (1948) not distributed in Canada.

For key to abbreviations see page 122

SEE MOTOR MAGAZINE FOR LATEST TECHNICAL INFORMATION

. . . THE MOST COMPLETE MECHANICAL SERVICE AVAILABLE IN CANADA

VALVES AND VALVE TIMING

Make and Model	Year	Angle of Seat—Intake	Stem to Guide Clearance—Intake (Min.-Max.)	Angle of Seat—Exhaust	Stem to Guide Clearance—Exhaust (Min.-Max)	Tappet Clearance—Intake (Min.-Max.)	Tappet Clearance—Exhaust (Min.-Max)	Clearance for Valve Timing Intake	Clearance for Valve Timing Exhaust	Valve Timing—Intake Opens (Degrees)	Valve Timing—Exhaust Closes (Degrees)
STUDEBAKER											
Commander 6 (9A)	'39	45	.0010	45	.0010	.016C	.016C	.020	—	15B	10A
President 8 (5C)	'39	45	.0010	45	.0010	.016C	.016C	.020	—	15B	10A
Champion "G"	'39	45	.0010	45	.0010	.016C	.016C	.020	—	15B	10A
Commander 6 (10A)	'40	45	.0010	45	.0010	.016C	.016C	.020	—	15B	10A
President 8 (6C)	'40	45	.0010	45	.0010	.016C	.016C	.020	—	15B	10A
Champion 2-G	'40	45	.0010	45	.0010	.016C	.016C	.020	—	15B	10A
Commander 6, 11-A	'41	45	.0015	45	.0015	.016C	.016C	.020	—	15B	10A
President 8, 7-C	'41	45	.0010	45	.0010	.016C	.016C	.020	—	15B	10A
Champion 6, 3-G	'41	45	.0010	45	.0010	.016C	.016C	.020	—	15B	10A
Commander 6, 12-A	'42	45	.0015	45	.0015	.016C	.016C	.020	—	15B	10A
President 8, 8-C	'42	45	.0010	45	.0010	.016C	.016C	.020	—	15B	10A
Champion 6, 4-G	'42	45	.0010	45	.0010	.016C	.016C	.020	—	15B	10A
Skyway, 5-G	'46	45	.0010	45	.0010	.016C	.016C	.020	—	15B	10A
Champion, 6-G	'47	45	.001-.0035	45	.001-.0035	.016C	.016C	.020	.020	15B	10A
Commander, 14-A	'47	45	.001-.0035	45	.001-.0035	.016C	.016C	.020	.020	15B	10A
Champion 7G	'48	45	.0015-.0035	45	.0015-.0035	.016C	.016C	.020	.020	15B	10A
Commander 15A	'48	45	.0015-.0035	45	.0015-.0035	.016C	.016C	.020	.020	15B	10A

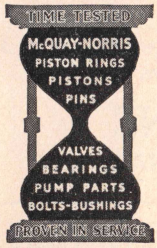
(Continued on page 122)

For key to abbreviations see page 122

McQUAY-NORRIS
RICH VALVES

Guides—Springs—Keepers

The valve that leading car manufacturers use. McQuay-Norris Rich Valves and valve assemblies are the trade's choice for replacement.





★ *Turn to page 88 for more information*

VALVES AND VALVE TIMING

Make and Model	Year	Angle of Seat—Intake	Stem to Guide Clearance—Intake (Min.-Max.)	Angle of Seat—Exhaust	Stem to Guide Clearance—Exhaust (Min.-Max)	Tappet Clearance—Intake (Min.-Max.)	Tappet Clearance—Exhaust (Min.-Max)	Clearance for Valve Timing Intake	Clearance for Valve Timing Exhaust	Valve Timing—Intake Opens (Degrees)	Valve Timing—Exhaust Closes (Degrees)
WILLYS											
Four-48	'39	45	.0020	45	.0030	.004H	.006H	.010	—	TDC	5A
Overland 39	'39	45	.0015	45	.0020	.014C	.016C	.020	—	9B	12A
Willys 440	'40	45	.0015	45	.0020	.014C	.014C	.020	—	9B	12A
Willys Americar	'41	45	.0015	45	.0020	.014C	.016C	.020	—	9B	12A
Willys Americar	'42	45	.0015	45	.0020	.014C	.014C	.020	—	9B	12A
CJ-2A Uni. Jeep	'45	45	.0020	45	—	.0140	.0140	—	—	9B	12A
CJ-2A Uni. Jeep	'47	45	.002	45	.003	.014C	.014C	.020	.020	9B	12A
CJ2A,2WD,4WD,463	'48	45	.0015-.00325	45	.0025-.0045	.014	.014	.020	.020	9B	12A
6-63	'48	45	.0015-.00325	45	.0025-.0045	.014	.014	.020	.020	5B	12A

ABBREVIATIONS

A = After top dead centre.
a = Remove all valve lash. Use No. 1 exhaust to check valve timing. Check with dial indicator
(a) = 8°B after engine change.
B = Before top dead centre.
C = Cold.
(d) = 2°A after engine change.
H = Hot.
hh = Intake .014" on opening side, .018" on closing side; exhaust .017" on opening side, .021" on closing side.
NU = Not used.
TC = .010 up to engine No. 10769, .014 after engine 10769.
TDC = Top dead centre.
** = Intake clearance .008H after engine change; exhaust clearance .010H after engine change.
∅ = .001 after engine change.
@ = Engine at operating temperature.

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MOTOR MAGAZINE

"SERVICE AND LEADERSHIP IN CANADA"

SEE MOTOR MAGAZINE FOR LATEST TECHNICAL INFORMATION

. . . THE MOST COMPLETE MECHANICAL SERVICE AVAILABLE IN CANADA

CARBURETOR SERVICE

GASOLINE ECONOMY is *not* a function of the carburetor alone. The carburetor is only one link in the chain of units which must be "tuned" so that they all work in perfect harmony as a complete machine. The complete tune-up cycle of operations should be followed through in the proper order: compression, ignition, carburetion, then safety and general items.

Carburetor service simply means returning the unit to the original standards of adjustment established by the manufacturer. Special tools, gauges and service manuals must be available for this work. When wear necessitates the replacement of parts, check the carburetor model in the relevant manufacturer's manual and order by part number. This precaution is particularly important with regard to jets and metering rods in order to ensure that the original calibration will be restored when final adjustments are completed.

Some of the usual causes of poor gasoline mileage which should receive attention during the tune-up operation are:

Engine: Poor compression, usually due to worn and leaky piston rings, leaking valves, defective cylinder head gasket, valves not adjusted to standard specifications, valves sticking, broken or weak valve springs, incorrect valve timing, high engine friction, muffler clogged, or engine operating too hot or too cold.

Ignition: Timing not set to specifications, defective condenser, coil or distributor cap, contact breaker points worn or out of adjustment, high tension cables leaking, loose connections, spark plugs worn out, wrong type or not spaced according to specifications.

Carburetor: Float level incorrect, jets not correct size, worn or damaged, metering rod not correct size, worn, bent or not adjusted to specifications with the correct gauge, choke (automatic or manual) not operating properly, economizer system leaking fuel or not correctly adjusted, fuel air ratio too rich or too lean, clogged air cleaner, intake manifold too hot or too cold, leaks in fuel system.

General: Dragging brakes; tires under-inflated; high running gear friction; improper driving habits; operating conditions (stop and start).

SEE MOTOR MAGAZINE FOR LATEST TECHNICAL INFORMATION
. . . THE MOST COMPLETE MECHANICAL SERVICE AVAILABLE IN CANADA

CARBURETORS—STROMBERG

Manufacturer recommends: Do not try to check jets for wear by using drills or other gauges. It may ruin jets

Make and Model	Year	Model Number	Type	Power By-Pass Jet —Size No.	Main Metering Jet	Fuel Level (Engine Idling.)	Float Needle and Seat Assembly	Idle Adjusting Screw— Turn Open—Normal Setting
BUICK								
46-48-49	'39	AAV-26	D Du	57	.052	5/8	P-22499	out
44-00 & 45-00	'40	AAV-16	D-Du	60	.045	19/32	P-22499	out
47-00	'40	AAV-26	D-Du	54	.052	21/32	P-22499	out
Special 44	'41	AAV-16	D Du	60	.045	19/32	P-22499	1 1/4
Super 45	'41	AA-1†	D-Du	No	.048	19/32	P-22499	1 1/4
Super 45	'41	AAV-16‡	D Du	60	.041	19/32	P-22498	1 1/4
Century 46	'41	AA-1†	D-Du	No	.053	19/32	P-22498	1 1/4
Century 46	'41	AAV-16‡	D-Du	56	.047	19/32	P-22498	1 1/4
Roadmaster 47	'41	AA-1†	D-Du	No	.053	19/32	P-22498	1 1/4
Roadmaster 47	'41	AAV-16‡	D-Du	56	.047	19/32	P-22498	1 1/4
Series 44	'42	AAV-16	D-Du	60	.045	19/32	P-22499	1 1/4*
Series 45	'42	AA-1†	D-Du	No	.048	19/32	383046	1 1/4*
Series 45	'42	AAV-16‡	D Du	60	.041	19/32	P-22498	1 1/4*
Series 46	'42	AA-1†	D-Du	No	.053	19/32	383046	1 1/4*
Series 46	'42	AAV-16‡	D Du	56	.047	19/32	P-22498	1 1/4*
Series 50	'46	AAV-16	D-Du	—	—	19/32	P-22498	*
Series 70	'46	AAV-26	D-Du	—	—	21/32	—	*
Series 40	'47	AAV-16	D-Du	60	.045	x	P 22498	*
Series 50	'47	AAV-16	D Du	60	.045	x	P-22498	*
Series 70	'47	AAV-26	D Du	54	.051	x	P-22499	*
Series 40, 50, 70	'48	(Not distributed in Canada)						
CADILLAC								
V-8 61	'39	AAV-26	D-Du	54	.050	5/8	P-22499	out
V-8 60S	'39	AAV 26	D-Du	54	.050	5/8	P-22499	out
V-8 75	'39	AAV-26	D Du	54	.050	5/8	P-22499	out
V-8 62	'40	AAV-26	D Du	53	.049	5/8	P-22499	out
V-8 60S	'40	AAV-26	D Du	53	.049	5/8	P-22499	out
V-8 75	'40	AAV-26	D-Du	53	.049	5/8	P-22499	out
All Models	'41	AAV-26	D-Du	53	.050	5/8	P-22499	1 1/2
All Models	'42	AAV-26	D-Du	53	.048	5/8	P 22499	1 1/2*
"V" Eight	'47	AAV-26	D-Du	—	—	5/8	—	—
V-8	'48	(Not distributed in Canada)						
CHRYSLER								
De Luxe 8	'39	AAV-2	D-Du	54	.049	5/8	P-22499	out
Custom Imperial	'39	AAV-2	D-Du	54	.049	5/8	P-22499	out
De Luxe 8 C-26	'40	AAV-2	D-Du	54	.049	5/8	P-22499	out
Custom Imperial C-27	'40	AAV-2	D-Du	54	.049	5/8	P-22499	out
New Yorker 8, C-30	'41	AAV-2	D-Du	c	.051	5/8	P-22499	1
Crown Imperial 8, C-33	'41	AAV-2	D-Du	c	.051	5/8	P-22499	1
New Yorker 8, C-36	'42	AAV-2	D-Du	c	.051	5/8	P-22499	1*
Crown Imperial 8, C-37	'42	AAV-2	D-Du	c	.051	5/8	P-22499	1*
Eight—C-39, C-40	'47	AAGS-2	D-Du	c	.051	@	P-22499	1*
Eight—C-39, C-40	'48	AAGS-2	D-Du	c	.051	@	P-22499	1*
CROSLEY								
Four	'48	T-DY-9B	D-Si	—	—	—	—	3/4-1 1/4

For key to abbreviations see page 127

SEE MOTOR MAGAZINE FOR LATEST TECHNICAL INFORMATION

. . . THE MOST COMPLETE MECHANICAL SERVICE AVAILABLE IN CANADA

CARBURETORS—STROMBERG

Manufacturer recommends: Do not try to check jets for wear by using drills or other gauges. It may ruin jets.

Make and Model	Year	Model Number	Type	Power By-Pass Jet —Size No.	Main Metering Jet	Fuel Level (Engine Idling)	Float Needle and Seat Assembly	Idle Adjusting Screw— Turns Open—Normal Setting
DODGE								
De Luxe 6 D-12	'39	BXV-3	D-Si	54	.058	5/8	P-24063	out
Sta ndard 6 D-13	'39	BXV-3	D-Si	54	.058	5/8	P-24063	out
Big 6 D-11	'39	BXV-3	D-Si	54	.058	5/8	P-24063	out
Standard 6 D-15	'40	BXV-3	D-Si	54	.058	5/8	—	out
De Luxe 6 D-16	'40	BXV-3	D-Si	54	058	5/8	—	out
Big 6 D-14	'40	BXV-3	D-Si	54	.058	5/8	—	out
Kingsway D-20	'41	BXV-3	D-Si	54	.058	5/8	a	1
De Luxe & Special D-21	'41	BXV-3	D-Si	54	.058	5/8	a	1
Luxury Liner D-19	'41	BXVD-3	D-Si	58	.057	5/8	b	1
De Luxe D-23	'42	BXV-3	D-Si	55	.061	5/8	a	1*
Custom D-22	'42	BXVD-3	D-Si	55	.061	5/8	b	1*
D-25	'46	3-67A	D-Si	55	.061	5/8	.098	1
D-24	'46	3-77	D-Si	55	.061	5/8	.098	1
D-25	'47	BXV-3	D-Si	55	.061	5/8	P-21918	A
D-24	'47	BXVD-3	D-Si	55	.061	5/8	P-21918	A
D-25	'48	BXV-3	D-Si	55	.061	5/8	P-21918	A
D-24	'48	BXVD-3	D-Si	55	.061	5/8	P-21918	A
NASH								
Lafayette	'39	EE-1	D-Du	60	.042	15/32	P-20256	out
PACKARD								
Eight 1701	'39	EE-16	D-Du	57	.047	15/32	P-23509	out
Super 8 1703-5	'39	EE-23	D-Du	64	.051	5/8	P-22091	out
Twelve	'39	EE-3	D-Du	.070	.068	9/16	P-18948	out
Six	'40	BXOV-26	D-Du	54	.060	5/8	P-24063	out
Eight	'40	EE-16	D-Du	60	—	—	—	out
Super 8	'40	AAV-26	D-Du	54	.049	5/8	P-22499	out
Six 110	'41	BXOV-26	D-Si	53	.060	5/8"	P-21918	1 1/8
Super 8	'41	AAV-26	D-Du	54	.050	5/8"	P-22499	1 1/8
Six 110	'42	BXOV-26	D-Si	53	.060	5/8"	P 21918	1 1/8
Super 8	'42	AAV-26	D-Du	54	.050	5/8"	P-22499	1 1/8
STUDEBAKER								
Comm. 6 (9A)	'39	BXO-26	D-Si	56	.059	5/8"	P-21918	out
Pres. 8 (5C)	'39	AAO-161	D Du	65	.047	5/8"	P 22499	out
Comm. 6 (10A)	'40	BXO-26	D-Si	56	.059	5/8"	P-21918	out
Pres. 8 (6C)	'40	AAO-161	D Du	65	.047	5/8"	P 22499	out
Comm. 6 (11A)	'41	BXOV-26	D-Si	54	.057	5/8"	P 24063	1 1/4
Pres. 8 (7C)	'41	AAV-26	D Du	56	.044	5/8"	P-22499	1 1/4
Comm. 6 (12A)	'42	BXOV-26	D-Si	54	.057	5/8"	P 24063	1 1/4*
Pres. 8 (8C)	'42	AAV-26	D-Du	56	.044	5/8"	P-22499	1 1/4*

For key to abbreviations see page 127

SEE MOTOR MAGAZINE FOR LATEST TECHNICAL INFORMATION

. . . THE MOST COMPLETE MECHANICAL SERVICE AVAILABLE IN CANADA

CARBURETORS—FORD

Manufacturer recommends: Do not try to check jets for wear by using drills or other gauges. It may ruin jets.

Make and Model	Year	Model Number	Type	Power By-Pass Jet —Size No.	Main Metering Jet	Fuel Level (Engine Idling)	Float Needle and Seat Assembly	Idle Adjusting Screw— Turns Open—Normal Setting
FORD								
V-8 85	'39	F-94	D Du	—	.045	11/16	78-9564	out
V-8 85	'40	F-94	D-Du	—	.045	11/16	78-9564	out
V-8 85	'41	F-94	D-Du	—	.050	15/32	78-9564	5/8-3/4
V-8 "85"	'42	F-94	D-Du	—	.050	15/32	78-9564	5/8-3/4
LINCOLN								
Lincoln	'41	O-1	D-Du	—	.054	19/32	—	5/8-7/8
MERCURY								
Mercury	'39	F-94	D-Du	—	.045	11/16	78-9546	out
Mercury	'40	F-94	D-Du	—	.045	11/16	78-9564	out
Mercury	'41	F-94	D-Du	—	.050	15/32	78-9564	5/8-3/4
Mercury	'42	F-94	D-Du	—	.050	15/32	78-9564	5/8-3/4

CARBURETORS—HOLLEY

FORD								
De Luxe	'46	F-94	D-Du	—	.051	11/16	78-9564	5/8-3/4
Super De Luxe	'46	F-94	D-Du	—	.051	11/16	78-9564	5/8-3/4
De Luxe	'47	F-94	D-Du	.039	.051	11/16	78-9564	5/8-3/4
Super De Luxe	'47	F-94	D-Du	.039	.051	11/16	78-9564	5/8-3/4
Super De Luxe	'48	F-94	D-Du	.039	.051	11/16	78-9564	5/8-3/4
LINCOLN								
Lincoln & Lincoln Continental	'47	F-100	D-Du	.041	.053	17/32	78-9564	—
Linc. & Lincoln Continental	'48	F-100	D Du	.041	.053	17/32	78-9564	—
MERCURY								
114 & 114X	'46	F-94	D-Du	—	.051	11/16	78-9564	5/8-3/4
118	'46	F-94	D-Du	—	.051	11/16	78-9564	5/8-3/4
114 & 114X	'47	F-94	D Du	.039	.051	11/16	78-9564	5/8-3/4
118	'47	F-94	D Du	.039	.051	11/16	78-9564	5/8-3/4
118	'48	F-94	D-Du	.039	.051	11/16	78-9564	5/8-3/4
MONARCH								
Monarch	'46	F-94	D-Du	—	.051	11/16	78-9564	5/8-3/4
Monarch	'47	F-94	D-Du	.039	.051	11/16	78-9564	5/8-3/4
Monarch	'48	F-94	D-Du	.039	.051	11/16	78-9564	5/8-3/4

For key to abbreviations see page 127

SEE MOTOR MAGAZINE FOR LATEST TECHNICAL INFORMATION
. . . THE MOST COMPLETE MECHANICAL SERVICE AVAILABLE IN CANADA

CARBURETORS — ZENITH

Manufacturer recommends: Do not try to check jets for wear by using drills or other gauges. It may ruin jets.

Make and Model	Year	Carburetor Type	Carburetor Number	Idle Adjust. Setting	Float Level—Inches	Metering Rod or Jet—Standard	1 Size Lean
AUSTIN (English)							
A-40	'48	30vm4C/51105	D-Di	65	95	—	—	1½

ABBREVIATIONS

A=Adjust to smooth idle—out richer.
a=P-24827 with filter.
b=P-24827 with filter; P-24063 without filter.
c=two—No. 56.
D2=Two, downdraft.
DDu=Downdraft, dual.
DSi=Downdraft, single.
T=Tillorson
x=At bottom of sight hole.
†=Rear carburetor.
‡=Front carburetor.
*=Out richer, In leaner—adjust to smooth, one barrel at a time.
@=At hole.

CARBURETORS — CARTER

Manufacturer recommends: Do not try to check jets for wear by using drills or other gauges. It may ruin jets.

Make and Model	Year	Carburetor Type	Carburetor Number	Idle Adjust. Setting	Float Level—Inches	Metering Rod or Jet—Standard	1 Size Lean
BUICK							
44 Special	'39 and Early '40	WDO	419S	⅜	5/16	75-340	75-362
Special 44	'41	WCD	487S	½-1½	Er 9/64-La 5/16	75-459	75-488
Super 45	'41	WCD	528S(j)	¼-1¼	5/16	75-492	75-503
Century 46	'41	WCD	533S(y)	¼-1¼	5/16	75-473	75-490
Roadmaster 47	'41	WCD	533S(y)	¼-1¼	5/16	75-473	75-490
Series 44	'42	WCD	487S	½-1½	Er 9/64-La 5/16	75-459	75-488
Series 46	'42	WCD	533S(y)	¼-1¼	5/16	75-473	75-490
Series 50	'46	WCD	608S	½-1	5/16	75-459	75-488
Series 70	'46	WCD	609S	¾-1¾	5/16	75-592	75-557
Series 40	'47	WCD	608S	*	5/16	75-459	75-488
Series 50	'47	WCD	608S	*	5/16	75-459	75-488
Series 70	'47	WCD	609S	*	5/16	75-592	75-557
Series 40-50	'47	WCD	608S-608SA	½-1	5/16	75-459	75-488
Series 60-70	'47	WCD	609S-609SA	¾-1¾	5/16	75-592	75-557
Series 40, 50, 70	'48	(Not distributed in Canada)					

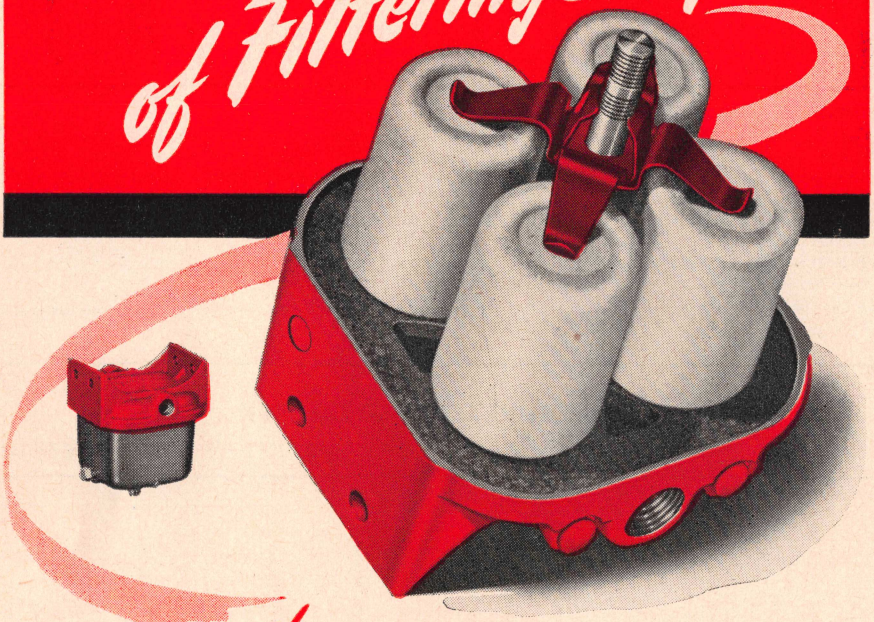
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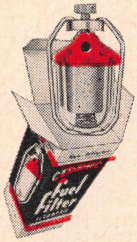
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. . . THE MOST COMPLETE MECHANICAL SERVICE AVAILABLE IN CANADA

32 SQUARE INCHES of Filtering Surface



in the CARTER FOURSOME CERAMIC FUEL FILTER



The standard Carter Ceramic Fuel Filter. Uses same filtering element made of specially prepared porcelain to assure a steady flow of gasoline free from dirt, lint, water and all harmful matter.

Four times the filtering area of a standard filter is provided by four scientifically designed ceramic units of specially prepared porcelain. This rugged filter meets the heavy duty demands of trucks, buses, stationary engines and passenger cars.

Central Service Distributors:

AUTO ELECTRIC SERVICE COMPANY, LIMITED
1009-27 BAY ST., TORONTO, ONTARIO

BEATTIE AUTO ELECTRIC, LIMITED
176 FORT ST., WINNIPEG, MANITOBA

★ *Turn to page 88 for more information*

CARBURETORS — CARTER

Manufacturer recommends: Do not try to check jets for wear by using drills or other gauges. It may ruin jets.

Make and Model	Year	Carburetor Type	Carburetor Number	Idle Adjust. Setting	Float Level—Inches	Metering Rod or Jet—Standard	1 Size Lean
CADILLAC							
V-16 90	'39	WDO	407S(L)	1/4-1	13/64	75-307	75-328
V-16 90	'39	WDO	408S(R)	1/4-1	13/64	75-307	75-328
All Series	'41	WDO	506S	1/2-1 1/2	1/8	75-422	75-423
All Series	'42	WCD	486S	3/4-1 3/4	9/64	75-526	75-550
All Series	'46	WCD	595S	1/2-1 1/2	9/64	75-576	75-597
All Series	'47	WCD	595S	1/2-1 1/2	9/64	75-576	75-597
V-8	'48	(Not distributed in Canada)					
CHEVROLET							
Six	'39-'40-'41-'42	W-1	420S	1-2	1/2	75-377	75-342
Fl. Economy	'42	W-1	492S	1 1/4-2 1/4	1/2	75-508	75-518
Def. Vehicle	'42	W-1	515S	1 1/4-2 1/4	3/8	75-562	—
COE Truck	'41-'42-'46	BB-U	517S	1/2-1 1/2	1/16	159-98	159-99
Def. Vehicle	'40-'41-'42-'43	W-1	518S	1-2	3/8	75-571	—
Six	'46	W-1	574S	1 1/4-2 1/4	1/2	75-508	75-517
Six	'47	W-1	574S	1 1/4-2 1/4	1/2	75-485	75-517
Six	'48	W-1	574S	1 1/4-2 1/4	1/2	75-485	75-517
CHRYSLER							
Six C-22	'39	BB-D	E6N1	1/2-1 1/4	5/64	159-59S	159-61S
Six C-25	'40	BB-D	E6S1-2	1/2-1 1/2	5/64	159-89S	159-87S
Royal 6 C-28	'41	BB-D	E6S3	1/2-1 1/2	5/64	159-89S	159-87S
Royal 6 C-28 FS	'41	BB-D	E6U1-2	1/2-1 1/2	5/64	159-89S	159-87S
Lt Royal and Windsor 6-C-28FS	'41	BB-D	E6T1-2	1/2-1 1/2	5/64	159-89S	159-87S
Lt. Royal and Windsor 6 C-28	'41	BB-D	E6W1	1/2-1 1/2	5/64	150-89S	159-87S
Lt. Royal and Windsor 6 C-28F	'41	BB-D	EA1	1/2-1 1/2	1/16	159-89S	159-87S
Royal 6 C-34	'42	BB-D	EE1	1/2-1 1/2	5/64	159-89S	159-87S
Royal 6C-34F	'42	BB-D	EF1	1/2-1 1/2	1/16	159-89S	159-87S
Windsor 6 C-34FS	'42	BB-D	EG1	1/2-1 1/2	1/16	159-89S	159-87S
Windsor and Royal C-38FS	'46	BB-D	EV1	3/4-1 1/4	5/64	159-89S	159-87S
Windsor and Royal C-38F	'46	BB-D	EU1	3/4-1 1/4	5/64	159-89S	159-87S
Six—C-38S	'47	BB-D	EU1	3/4-1 1/4	5/64	159-89S	159-87S
Six—C-38W	'47	BB-D	EV1	3/4-1 1/4	5/64	159-89S	159-87S
Eight—C-39, C-40	'47	BB-D	E7A1	3/4-1 1/4	5/64	159-89S	159-87S
Six—C-38	'48	BB-D	EV1	3/4-1 1/4	1/16	159-89S	159-87S
Six—C-38	'48	BB-D	EU1	3/4-1 1/4	5/64	159-89S	159-87S
Six—C-38	'48	BB-D	EX1	3/4-1 1/4	5/64	159-89S	159-87S
DE SOTO							
6 S-6-7 and Taxi	'39-'40	BB-D	E6N1-3	1/2-1 1/4	5/64	159-63S	159-59S
Late 6 S-8	'41	BB-D	E6S3	1/2-1 1/2	5/64	159-89S	159-87S
6 S-8FS	'41	BB-D	E6U1-2	1/2-1 1/2	5/64	159-89S	159-87S
S10	'42	BB-D	EE1	1/2-1 1/2	5/64	159-89S	159-87S
S10F	'42	BB-D	EF1	1/2-1 1/2	1/16	159-89S	159-87S
S-10FS	'42	BB-D	EG1	1/2-1 1/2	1/16	159-89S	159-87S
S-11	'46	BB-D	EV1	3/4-1 1/4	5/64	159-89S	159-87S
S-11	'47	BB-D	EV1	3/4-1 1/4	5/64	159-89S	159-87S
S-11	'48	BB-D	EV1	3/4-1 1/4	1/16	159-89S	159-87S

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For key to abbreviations see page 132

SEE MOTOR MAGAZINE FOR LATEST TECHNICAL INFORMATION
. . . THE MOST COMPLETE MECHANICAL SERVICE AVAILABLE IN CANADA

CARBURETORS — CARTER

Manufacturer recommends: Do not try to check jets for wear by using drills or other gauges. It may ruin jets.

Make and Model	Year	Carburetor Type	Carburetor Number	Idle Adjust. Setting	Float Level—Inches	Metering Rod or Jet—Standard	1 Size Lean
DODGE							
D-11X-D12,D12X	'39	BB-D	D6A2	1/2-1 1/4	5/64	159-61S	159-66S
D-14X, D13, D15X	'40	BB-D	D6C2	1/2-1 1/4	5/64	159-61S	159-66S
D-19X, D20, D20X	'41	BB-D	D6D1	1/2-1 1/4	5/64	159-61S	159-66S
FRAZER							
F-47	'47	WA-1	622SA	3/4-1 3/4	1/2	75-593	75-599
Manhattan	'48	WCD	685SA	1-1 1/2	1/16	75-622	
HUDSON							
6-93, 8-95, 8-97	'39	WDO	430S	1/4-1 1/4	3/32	75-348	75-357
112-92-98	'39	W-1	438S	1/2-1 1/4	3/8	75-353	75-354
6-41, 6-43	'40	WDO	430SV	1/4-1 1/4	3/32	75-348	75-357
6-41, 6-43	'40	WDO	461S	1/2-1 1/2	3/32	75-404	75-414
6-40, 6-10, 6-20	'40-'41-'42	WA-1	454S	3/4-1 1/2	3/8	75-407	75-410
8-44, 8-47	'40	WDO	455S	1/2-1 1/2	5/32	75-405	75-418
11, 12, 13	'41	WDO	501S	1/2-1 1/2	1/8	75-467	75-474
21, 22, 51	'42	WDO	501S	1/2-1 1/2	1/8	75-467	75-474
52, 58	'46	WDO	501S	1/2-1 1/2	1/8	75-467	75-474
14, 15, 17	'41	WDO	502S	1/2-1 1/2	1/8	75-529	75-480
24, 25, 27	'42	WDO	502S	1/2-1 1/2	1/8	75-529	75-480
53, 54	'46	WDO	502S	1/2-1 1/2	1/8	75-529	75-480
173-174	'47	WDO	502S	1/2-1 1/2	1/8	75 466	75-478
Six	'48	WDO	647S	1 1/4-1 3/4	5/16	75-610	75-623
Eight	'43	WDO	648S	1-1 1/2	13/64	75-607	75-627
HUPMOBILE							
6-622E-922E	'38-'39	W-1	398S	3/4-1 1/4	3/8	75-273	75-332
8-825H-925H	'38-'39	WDO	399S	1/4-1	5/16	75-276	75-334
KAISER							
K-100	'47	WA-1	622SA	3/4-1 3/4	1/2	75-593	75-599
Special	'48	WA1	622SB	3/4-1 3/4	1/2	75-642	
LA SALLE							
39-50	'39	WDO	423S	1/2-1 1/4	1/8	75-347	75-388
40-50 and 40-52	'40	WDO	460S	1/2-1 1/2	1/8	75-403	75-422
NASH							
3920-4020-4160	'39-'40-'41	WA-1	435S	3/4-1 1/2	3/8	75-372	75-384
3980	'39	WDO	436S	1/4-1	5/16	75-379	75-386
4010	'40	WDO	458S	1/4-1 1/4	5/16	75-408	75-431
4080	'40	WDO	465S	1/2-1 1/2	5/16	75-406	75-433
4140-4240	'41-'42	BB-D	513S	1/2-1 1/4	5/64	159-95S	159-58S
4180	'41	WDO	511S	1/2-1 1/2	5/16	75-500	75-501
4260-4660	'42-'46	WA-1	464S	1/2-1 1/2	3/8	75-534	75-384
4280	'42	WDO	538S	1/4-1 1/4	5/16	75-500	75-501
4640	'46	WA-1	611S	1 1/4-2 1/4	1/2	75-584	75-585

For key to abbreviations see page 132

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. . . THE MOST COMPLETE MECHANICAL SERVICE AVAILABLE IN CANADA

CARBURETORS — CARTER

Manufacturer recommends; Do not try to check jets for wear by using drills or other gauges. It may ruin jets.

Make and Model	Year	Carburetor Type	Carburetor Number	Idle Adjust. Setting	Float Level—Inches	Metering Rod or Jet—Standard	1 Size Lean
NASH—Continued							
4740	'47	WA-1	611S	1 1/4	1/2	75-584	75-585
4760	'47	WA-1	464S	1 1/4	3/8	—	—
4840	'48	WA1	622SA	3/4-1 3/4	1/2	75-619	
4860	'48	WA1	464S	1/2-1 1/2	3/8	75-372	75-384
OLDSMOBILE							
Six	'39	WA-1	426S	1/2-1 1/2	3/8	75-341	75-375
F-40, G-40	'40	WA-1	466S	1/2-1 1/2	3/8	75-430	75-435
Six	'41-'42-'46	WA-1	504S	1/2-1 1/2	1/2	75-487	75-512
Six HT	'41-'42-'46	WA-1	481S	1/2-1 1/2	1/2	75-487	75-512
Eight SM	'41-'42-'46	WDO	503S	1/2-1 1/2	5/16	75-486	75-509
Eight HT	'41-'42-'46	WDO	480S	1/2-1 1/2	5/16	75-486	75-509
Six	'42	W-1	523S	1/2-1 1/2	9/16	75-523	—
Six	'47	WA-1	504S	1/2-1 1/2	1/2	75-487	75-512
Six HT	'47	WA-1	481S	1/2-1 1/2	1/2	75-487	75-512
Eight SM	'47	WDO	503S	1/2-1 1/2	5/16	75-486	75-509
Eight HT	'47	WDO	480S	1/2-1 1/2	5/16	75-486	75-509
Six	'48	WA1	651S	1/2-1 1/2	1/2	75-487	75-512
Eight	'48	WDO	650S	1/2-1 1/2	5/16	75-641	
PACKARD							
120	'41	WDO	478S	1/2-1 1/2	5/32	75-451	75-519
1951-120	'41-'42-'46	WDO	512S	1/2-1 1/2	5/32	75-451	75-519
2000	'41	WA-1	530S	1/2-1 1/2	3/8	75-535	75-536
160-8180	'42-'46	WDO	531S	1-2	5/32	75-538	75-539
2100-2130	'47	WA-1	530S	1/2-1 1/2	3/8	75-535	75-536
2101-2111	'47	WDO	512S	1/2-1 1/2	5/32	75-451	75-519
2106-2103-2126	'47	WDO	531S	1/2-1 1/2	5/32	75-538	75-539
Super 8	'48	WDO	643SA	3/4-1 1/4	5/32	75-451	
Standard 8	'48	WDO	644SA	5/8-1 1/8	5/32	75-638	
Custom 8	'48	WDO	531SA	1 1/2-2	5/32	75-616	75-639
PLYMOUTH							
P-7 P-8	'39	BB-D	D6A1-2(i)	1/2-1 1/4	5/64	159-61S	159-66S
P-9 P10	'40	BB-D	D6A1-2(i)	1/2-1 1/4	5/64	159-61S	159-66S
P-11 P-12	'41	BB-D	D6A1-2(i)	1/2-1 1/4	5/64	159-61S	159-66S
P-14 P-15	'42-'46	BB-D	D6G1(i)	1/2-1 1/4	5/64	159-61S	159-66S
P 15	'47	BB-D	D6G1(i)	1/2-1 1/4	5/64	159-61S	159-66S
P-15	'48	BB-D	D6G1	1/2-1 1/4	5/64	159-61	159-66S
PONTIAC							
2200	'39-'40	W-1	420S	1-2	1/2	75-377	75-342
40-25, 40-26, 40-28	'40	WA-1	462S	3/4-1 1/2	7/16	75-409	75 425
2000, 2200, 2500	'41 Early '42	WA-1	494S	3/4-1 3/4	1/2	75-472	75-506
2000, 2200, 2500	'42	W-1	521S	1/2-1 1/2	11/16	75-530	75-555
2000, 2200, 2500	'42	W-1	545S	1/2-1 1/2	11/16	75-552	—
20-22-25	'46	WA-1	537S	1/2-1 3/4	7/16	75-528	75-582
42-27, 42-28	'46	WDO	548S	1/4-1 1/4	5/16	75-443	75-544
47-27, 47-28	'47	WCD	630S	3/4-1 3/4	5/16	75-594	—
Six	'47	WA-1	537S	—	7/16	75-528	—

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For key to abbreviations see page 132

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CARBURETORS—CARTER

Manufacturer recommends; Do not try to check jets for wear by using drills or other gauges. It may ruin jets.

Make and Model	Year	Carburetor Type	Carburetor Number	Idle Adjust. Setting	Float Level—Inches	Metering Rod or Jet—Standard	1 Size Lean
PONTIAC—Continued							
Eight	'47	WCD	630S	—	3/16	75-594	—
Six Std. Trns.	'48	WA1	537S	1-1 3/4	7/16	75-528	75-582
Six—Hydr. Trns.	'48	WA1	652S	1-1 3/4	7/16	75-528	75-582
Eight—Std. Trns.	'48	WCD	630SB	3/4-1 3/4	3/16	75-594	75-604
Eight—Hydr. Trns.	'48	WCD	653S	3/4-1 3/4	3/16	75-594	75-604
N.B. Fleetleaders (1941-2-6-7-8) are 20 and 22 Series; Torpedo 6 & 8 (1941-2-6-7-8) are 25 and 27 Series respectively. Streamliner 6 & 8 (1941-2-6-7-8) are 26 and 28 Series respectively; Streamliner 6 & 8 (1948) not distributed in Canada.							
STUDEBAKER							
Champion "G"	'39	W-O	444S	3/4-1 1/4	3/8	75-393	75-394
Champion "G"	'39	W-O	453S	3/4-1 1/4	1/4	75-393	75-394
M-16	'41-'42-'45-'46	BB-D	514S	1/2-1	5/64	159-58S	159-60S
President 7C-8C	'40	WDO	409S	1/4-1 1/4	3/16	75-312	75-321
Champion 2G	'40	W-O	468S	3/4-1 1/4	1/4	75-393	75-394
Champion 3G	'41	WA-1	496S	1/2-1 1/2	5/16	75-484	75-493
Champion 4G and T	'42	WA-1	496S	1/2-1 1/2	5/16	75-484	75-493
Skyway 5G	'46	WA-1	496S	1/2-1 1/2	5/16	75-484	75-493
Champion 5G and T	'46	WE	532S	1/2-1 1/2	1/4	75-484	75-493
Champion 6G	'47	WE	532S	1/2-1 1/2	1/4	75-484	75-493
Champion 6G and T	'47	WE	532S	1/2-1 1/2	1/4	75-484	75-493
Champion 7G	'48	WE	661S	1/2-1 1/2	3/8	75-484	75-493
WILLYS							
440	'40	W-O	450S	1/2-2 1/2	3/8	75-390	75-399
Americar	'41-'42	W-O	507S	1/2-1 1/2	3/8	75-497(r)	75-498
Jeep (TT)	'42	W-O	539S	1-2	3/8	75-547	75-548
CJ-2A Universal Jeep	'45-'46	W-O	596S	1-2	3/8	75-547	75-548
Station Wagon	'46	WA-1	613S	1/2-1 1/2	5/16	75-589	75-601
CJ-2A Universal Jeep	'47	W-O	596S	1/2	3/8	75-547	75-548
Station Wagon	'47	WA-1	613S	1/2-1 1/2	5/16	75-589	75-601
Universal jeep, Jeep truck and sports.	'48	WO	636SA	1-2	3/8	75-547	75-548
Station wagon, panel delivery, sports phaeton	'48	WA1	613S	1/2-1 1/2	5/16	75-589	75-601
Station Sedan "6"	'48	WA1	645S	1-2	5/16	75-609	

ABBREVIATIONS

BB-D=B & B, downdraft, single.
BB-U=B & B, updraft, single.
D=Diameter.
Er=Early.
F=Fluid drive, standard transmissions.
FS=With fluid drive and Simplimatic transmissions.
HM=With Hydra-Matic transmission.
(i)=Cars with automatic choke, equipped with carburetors D6C1, or D6C2.
(j)=Front carburetor 528S; rear 529S.
Lt=Later model
(L)=Left side.
N=None.
(R)=Right side.
(r)=With governor use 75-464.
TT=4x4 M.B. truck.
&T=And M5-M15 trucks.
W-1=Downdraft, single.
WA-1=Downdraft, single, with climatic control.
WCD=Dual downdraft, climatic control.
WDO=Downdraft, dual.
WE=Downdraft single.
W-O=Downdraft single.
(y)=Front carburetor 533S; rear 534S, or 544S.
*=Turn out for richer, in for leaner; adjust to smooth idle, one barrel at a time.

SEE MOTOR MAGAZINE FOR LATEST TECHNICAL INFORMATION
. . . THE MOST COMPLETE MECHANICAL SERVICE AVAILABLE IN CANADA

USE OF MICROMETERS

How to read a micrometer, to use it, and how to identify its parts. Also some interesting points about this indispensable instrument by which good mechanics are identified.

PRACTICALLY all manufacturers' service manuals quote service data measurements in thousandths of an inch. Therefore, it is important that service technicians understand the decimal system of measurement and be able to use and read micrometers. For example, a valve clearance of .010 inch may be specified. This means that the clearance is to be ten, one thousandths, or as it is usually read, ten thousandths of an inch. It will be noticed that this decimal could be read one hundredth of an inch; however, to avoid any possible confusion, it is expressed in thousandths.

For many engine measurements .001 inch is divided into 10 parts. giving each part a length of 1/10,000, or one ten thousandth of an inch (.0001 inch). This measurement is often referred to as tenths, one tenth simply meaning 1/10 of one thousandth of an inch.

The measuring device used to divide one inch into one thousand or ten thousand parts is the micrometer, invented in 1848 by a Frenchman. Jean Palmer. Three distinct types are the outside, inside and depth micrometers.

The principal parts of the standard English micrometer caliper are: The frame, barrel or sleeve, anvil, spindle and thimble. The top end of the spindle is attached to the thimble and is threaded to fit a nut in the frame. The pitch of the micrometer screw is 1/40th of an inch, or 40 threads to the inch. By turning the thimble one complete revolution the spindle moves 1/40th of an inch, or .025 inch.

When reading a measurement, first note the last figure visible on the scale on the barrel, representing the tenths of an inch. Multiply the number of divisions visible beyond this figure by 25 and add the number of the divisions on the scale on the thimble that coincides with the line of graduations on the barrel. Then this sum expressed in thousandths, added to the tenths shown, is the reading. To obtain readings in ten-thousandths of an inch a vernier is employed on the barrel, or sleeve, of the instrument.

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TABLE OF DECIMAL EQUIVALENTS

1/64	.015625
1/32	.03125
3/64	.046875
1/16	.0625
5/64	.078125
3/32	.09375
7/64	.109375
1/8	.125
9/64	.140625
5/32	.15625
11/64	.171875
3/16	.1875
13/64	.203125
7/32	.21875
15/64	.234375
1/4	.25
17/64	.265625
9/32	.28125
19/64	.296875
5/16	.3125
21/64	.328125
11/32	.34375
23/64	.359375
3/8	.375
25/64	.390625
13/32	.40625
27/64	.421875
7/16	.4375
29/64	.453125
15/32	.46875
31/64	.484375
1/2	.5
33/64	.515625
17/32	.53125
35/64	.546875
9/16	.5625
37/64	.578125
19/32	.59375
39164	.609375
5/8	.625
41/64	.640625
21/32	.65625
43/64	.671875
11/16	.6875
45/64	.703125
23/32	.71875
47/64	.734375
3/4	.75
49/64	.765625
25/32	.78125
51/64	.796875
13/16	.8125
53/64	.828125
27/32	.84375
55/64	.859375
7/8	.875
57/64	.890625
29/32	.90625
59/64	.921875
15/16	.9375
61/64	.953125
31/32	.96875
63/64	.984375
1	1.

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★ *Turn to page 88 for more information*

WHEEL ALIGNMENT AND TIRES

Make and Model	Year	Caster—Degrees	Camber—Degrees	Toe-in—Inches	King Pin Inclination—Degrees	Tire Size	Pressure—Front	Pressure—Rear
AUSTIN (English)								
A-40	'48	2	1	0 - 1/16	6 1/2	16 x 5.95	24	25
BUICK								
44 Special	'39	7/8	1/4	0	3 1/2	16 x 6.50	23	28
46 Century	'39	7/8	1/4	0	3 1/2	15 x 7.00	23	28
48 Roadmaster	'39	7/8	1/4	0	4 1/4	16 x 7.00	25	30
49 Limited	'39	7/8	1/4	0	4 1/4	16 x 7.50	25	30
44-00 & 45-00	'40	3/8	1/4	0	3 1/2	16 x 6.50	23	28
47 Roadmaster	'40	3/8	1/4	0	3 1/2	15 x 7.00	23	28
Sp. 44, Super 45	'41	3/8	0	—1/8–1 1/8	3 1/2	16 x 6.50	25	30
Series 46, 47	'41	3/8	0	—1/8–1 1/8	3 1/2	15 x 7.00	25	30
Series 49	'41	3/8	0	—3/8–+7/8	4 3/4	16 x 7.50	25	30
Series 44	'42	3/8	0	0–1/16	3 1/2	16 x 6.50	25	25
Series 46	'42	3/8	0	0–1/16	3 1/2	15 x 7.00	25	25
Series 50	'46	3/8 ± 3/8	— 1/8 to + 1 1/8	0-1/16	4 1/8	16 x 6.50	25-28W	25-28W
Series 70	'46	3/8 ± 3/8	— 1/8 to + 1 1/8	0-1/16	4 1/8	15 x 7.00	25-28W	25-28W
Series 40	'47	3/8±3/8	— 1/8 to + 1/8	0-1/16	4 1/4**	16 x 6.50	25-28W	25-28W
Series 50	'47	3/8±3/8	— 1/8 to + 1/8	0-1/16	4 1/4**	16 x 6.50	25-28W	25-28W
Series 70	'47	3/8±3/8	— 1/8 to + 1/8	0-1/16	4 1/4**	15 x 7.00	25-28W	25-28W
Series 40, 50, 70	'48	(Not distributed in Canada)						
CADILLAC								
V-8 61	'39	1/4	1/4	0	5	16 x 7.00	26	26
V-8 60S	'39	1/4	0	0	5	16 x 7.50	28	28
V-8 75	'39	1/4	0	0	5	16 x 7.50	32	32
V-16 90	'39	1/4	0	0	5	17 x 7.50	32	32
V-8 62	'40	1 3/4	1/2	0	5	16 x 7.00	26	26
V-8 60S	'40	1 3/4	1/2	0	5	16 x 7.00	26	26
V-8 75	'40	1 3/4	1/2	0	5	16 x 7.50	32	32
60, 61, 62, 63	'41	—1 3/4	—3/8	1/32	6	15 x 7.00	28	28
67, 75	'41	—1 3/4	—3/8	1/32	6	16 x 7.50	24	32
60, 61, 62, 63	'42	—1 3/4	—3/8	1/32	6	15 x 7.00	28	28
67, 75	'42	—1 3/4	—3/8	1/32	6	16 x 7.50	24	32
"V" Eight	'46	—1 3/4 to —2 1/4 ∅	—3/8 to +3/8	1/32-3/32	5 51′	K	28††	28††
Eight	'47	—1 3/4 to —2 1/4 ∅	—3/8 to +3/8	1/32-3/32	5 51′	K	28††	28††
V-8	'48	(Not distributed in Canada)						
CHEVROLET								
Six Master	'39	2 1/4	1	3/32	7 1/16	16 x 6.00	26	28
Six DeLuxe	'39	0	1/2	1/16	4 1/2	16 x 6.00	26	28
Six Master	'40	2 1/4	1	5/64	7 1/16	16 x 6.00	26	28
Six DeLuxe	'40	0	1/4	0	4 3/4	16 x 6.00	26	28
Six	'41	0	1/4	0	4 3/4	16 x 6.00	26	28
Six	'42	0	1/4	0	4 3/4	16 x 6.00	26	28
Six	'46	0 ± 1/2	—1/4 ± 1/2	0-1/16	4 3/4 ± 1/2	16 x 6.00	27-30	29-32
Six	'47	0±1/2	—1/4±1/2	0-1/8	4 3/4±1/2	16 x 6.00	26	28
Six	'48	0±1/2	—1/4±1/2	0-1/8	4 3/4±1/2	15 x 6.70	24	24

(Continued on page 139)

For key to abbreviations see page 145

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EASY TO HANDLE—Light in weight, compact, sturdy—just right for convenient, easy handling.

EASY TO READ—A magnifying lens shows the pressure figures BIG—makes reading quick and easy.

REGISTERS AUTOMATICALLY—Pressure reading registers instantly as chuck is applied to valve.

FULL PRESSURE RANGE—Gauge calibrations are 15 to 55 lbs. in 1 lb. units, and 55 to 125 lbs. in 5 lb. units.

QUICK INFLATION—Fast air flow and easy gauge reading cuts time for tire inflation.

STANDS ROUGH USAGE—All mechanism is fully enclosed and protected.

Complete with inflator, spare gauge unit, swivel hose and chuck.

No. 8787 only $15.85

WHEEL ALIGNMENT AND TIRES

Make and Model	Year	Caster—Degrees	Camber—Degrees	Toe-in—Inches	King Pin Inclination—Degrees	Tire Size	Pressure—Front	Pressure—Rear
CHRYSLER								
Six C-22	'39	1/2*	1/4	0‡	4 3/4	16 x 6.25	28	28
De Luxe 8	'39	1/2*	0	0‡	4 3/4	16 x 6.50	28	28
Cus. Imp.	'39	1*	1/4	0‡	4 3/4	16 x 7.50	28	28
Six C-25	'40	1/2*	0	0‡	5 1/4	16 x 6.25	28	28
De Luxe C-26	'40	1/2*	0	0‡	5 1/4	(e)	(e)	(e)
Cus. Imp. C 27	'40	1/2*	0	0‡	5 1/4	15 x 7.50	28	28
Royal 6 C-28	'41	0*	+1/4	0‡	4 3/4	16 x 6.25	28	28
N. York. 8 C-30	'41	0*	+1/4	0‡	4 3/4	15 x 7.00	28	28
Cr. Imp. C-33	41	0*	+1/4	0‡	4 3/4	15 x 7.50	28	28
Royal 6 C-34	'42	0*	+1/4	0‡	4 3/4	16 x 6.25	28	28
N. York. 8 C-36	'42	0*	+1/4	0‡	4 3/4	15 x 7.00	28	28
Cr. Imp. C-37	'42	0*	+1/4	0‡	4 3/4	15 x 7.50	28	28
C-38W, C-38S	'46	0±1	+1/4	0	4 3/4-6	15 x 6.50	28	28
Six-C-38W, C-38S	'47	—1 to +1*	0 to +3/4P	0-1/16	4 3/4-6	15 x 6.50	28	28
Eight-C-39, C-40	'47	—1 to +1*	0 to +3/4P	0-11/16	4 3/4-6	15 x 7.00A	28	28
Six-C-38W, C-38S	'48	—1 to —1*	0 to +3/4P	0 51/16	4 3/4-6	15 x 7.60	24	24
Eight-C-39	'48	—1 to —1*	0 to +3/4P	0-1/16	4 3/4-6	15 x 8.20	24	24
Eight-C-40	'48	—1 to —1*	0 to +3/4P	0-1/16	4 3/4-6	15 x 8.90	24	24
CROSLEY								
Four	'48	7 1/2	2	3/64-1/16	6 1/2	12 x 4.50	25	25
DE SOTO								
Six S-6	'39	1 1/2*	1/4	0‡	4 3/4	16 x 6.00	28	28
Six S-7	'40	1/2*	0	0‡	5 1/4	16 x 6.25	28	28
Six S-8	'41	0*	+1/4	0‡	4 3/4	16 x 6.25	28	28
Sis S-10	'42	0*	+1/4	0‡	4 3/4	16 x 6.25	28	28
S-11	'46	0 ± 1	+1/4	0	4 3/4-6	15 x 6.50	28	28
S-11	'47	—1 to +1*	0 to +3/4P	0-1/16	4 3/4-6	15 x 6.50	28	28
S-11	'48	—1 to +1*	0 to +3/4P	0-1/16	4 3/4-6	15 x 7.60	24	24
DODGE								
De Luxe Six D-12	'39	1/2*	0	0‡	5 1/4	16 x 5.50	30	30
Standard Six D-13	'39	1/2*	0	0‡	5 1/4	16 x 6.00	28	30
Big Six D-11	'39	1/2*	0	0‡	5 1/4	16 x 6.00	28	28
Standard Six D-15	'40	1/2*	0	0‡	5 1/4	16 x 5.50	32	32
De Luxe Six D-16	'40	1/2*	0	0‡	5 1/4	16 x 6.00	28	28
Big Six D-14	'40	1/2*	0	0‡	5 1/4	16 x 6.00	28	28
Kingsway D-20	'41	1/2*	+1/4	0‡	4 3/4	16 x 6.00	28	28
De Luxe D-21	'41	0*	+1/4	0‡	4 3/4	16 x 6.00	28	28
Luxury Liner D-19	'41	0*	+1/4	0‡	4 3/4	16 x 6.00	28	28
De Luxe D-23	'42	0*	+1/4	0‡	4 3/4	16 x 6.00	28	28
Custom D-22	'42	0*	+1/4	0‡	4 3/4	16 x 6.00	28	28
D-25	'46	0 ± 1	+1/4	0	4 3/4-6	16 x 6.00	28	28
D 24	'46	0 ± 1	+1/4	0	4 3/4-6	16 x 6.00†	28	28
D-25	'47	—1 to +1*	0 to 3/4P	0-1/16	4 3/4-6	16 x 6.00	28	28
D-24	'47	—1 to +1*	0 to 3/4P	0-1/16	4 3/4-6	16 x 6.00†	28	28
D-25	'48	—1 to +1*	0 to 3/4P	0-1/16	4 3/4-6	15 x 6.70	24	24
D-24	'48	—1 to +1*	0 to 3/4P	0-1/16	4 1/4-6	15 x 7.10†	24	24

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For key to abbreviations see page 145

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WHEEL ALIGNMENT AND TIRES

Make and Model	Year	Caster—Degrees	Camber—Degrees	Toe-in—Inches	King Pin Inclination—Degrees	Tire Size	Pressure—Front	Pressure—Rear
FORD								
V-8 85	'39	8	1	1/16	8	16 x 6.00	30	30
V-8 85	'40	8	1	1/16	8	16 x 6.00	30	30
V-8 85	'41	8	1	1/16	8	16 x 6.00	28	28
V-8 85	'42	8	1	1/16	8	16 x 6.00	28	28
De Luxe	'46	7 15′	1	1/16	8	16 x 6.00	28	28
Super De Luxe	'46	7 15′	1	1/16	8	16 x 6.00	28	28
De L. & Super De L.	'47	5¼ to 7¼	¾ to 1¼	1/16-1/8	8	16 x 6.00	28	28
De L. & Super De L.	'48	5¼ to 7¼	¾ to 1¼	1/16-1/8	8	16 x 6.00	28	28
FRAZER								
F-47	'47	—1 to +1	0 to ¾	1/16	5½-6	15 x 6.50	28	28
F-47-47C,485-485	'48	—0 to 1‡‡	0 to +¾‡‡‡	1/16	4¾-5¾	15 x 6.50T	28	28
GRAHAM								
Six-96	'39	3	1	1/8	7½	16 x 6.00	28	28
Six-97	'39	3	1	1/8	7½	16 x 6.25	28	28
Six 107	'40	3	1	1/8	7½	16 x 6.25	28	28
Six-108	'40	3	1	1/8	7½	16 x 6.00	28	28
HUDSON								
Six-93	'39	1	1	0	7	16 x 6.00	24	32
Six-91	'39	1	1	0	7	16 x 6.00	24	32
Six-92	'39	1	1	0	7	16 x 6.00	24	32
Eight-95	'39	1	1	0	7	16 x 6.50	24	32
Eight-97	'39	1	1	0	7	16 x 6.50	24	32
Six-90	'39	1	1	0	7	16 x 6.00	24	32
Six-98	'39	1	1	0	7	16 x 6.00	24	32
Six-41	'40	0	½	1/32	3½	16 x 6.00	26	30
Six-43	'40	0	½	1/32	3½	16 x 6.25	26	30
Six-48	'40	0	½	1/32	3½	16 x 6.00	26	30
Eight-44	'40	0	½	1/32	3½	16 x 6.00	26	30
Eight-47	'40	0	½	1/32	3½	16 x 6.50	26	30
Six-40	'40	0	½	1/32	3½	16 x 5.50	26	30
Six-10T	'41	0	½	1/32	3½	16 x 5.50	32	32
Six-10SP, 10P	'41	0	½	1/32	3½	16 x 6.00	26	30
Six-11, 18	'41	0	½	1/32	3½	16 x 6.00	26	30
Six-12	'41	0	½	1/32	3½	16 x 6.25	26	30
Eight-14	'41	0	½	1/32	3½	16 x 6.25	26	30
Eight-15, 17	41	0	½	1/32	3°-6′	16 x 6.50	26	30
"6"-18, 20, 21	'42	0	½	1/32	3⅜	16 x 6.00	26	30
"6"-22	42	0	½	1/32	3⅜	16 x 6.25	26	30
"8"-24	42	0	½	1/32	3⅜	16 x 6.25	26	30
"8"-25, 27	42	0	½	1/32	3⅜	15 x 6.50	26	30
Six-51, 52	'46	0±¼	½ ¼	1/32—1/32	3 36′	X	Y	Z
Eight-53, 54	'46	0±¼	½ ¼	1/32 1/32	3 36′	X	Y	Z
Six—171, 172	'47	0±¼	½±¼	1/32±1/32	3 36′	X	Y	Z
Eight—173, 174	'47	0±¼	½¼	1/32±1/32	3 36′	X	Y	Z
Series 481	'48	0± ¼	½± ¼	—	3 36′	7.10 x 15.00	24	24
Series 482	'48	0± ¼	½± ¼	—	3 36′	7.10 x 15.00	24	24
Series 483	'48	0± ¼	½± ¼	—	3 36′	7.10 x 15.00	24	24
Series 484	'48	0± ¼	½± ¼	—	3 36′	7.10 x 15.00	24	24

For key to abbreviations see page 145

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WHEEL ALIGNMENT AND TIRES

Make and Model	Year	Caster—Degrees	Camber—Degrees	Toe-in—Inches	King Pin Inclination—Degrees	Tire Size	Pressure—Front	Pressure—Rear
HUPMOBILE								
6-922E	'39	2	1	1/16	7 1/2	16 x 6.25	25	25
8-925H	'39	1 1/2	1 1/4	1/16	8 1/2	16 x 6.50	25	26
KAISER								
K-100	'47	—1° to +1°	0° to 3/4°	1/16	5 1/2-6	15 x 6.50	28	28
K-100-101-481-482	'48	—0 to 1‡‡	0 to +3/4‡‡‡	1/16	4 3/4-5 3/4	15 x 6.50T	28	28
LA SALLE								
39-50	'39	1/4	1/4	0	5	16 x 7.00	25	26
40-50 and 40-52	'40	1 3/4	0	1/16	5	16 x 7.00	24	24
LINCOLN								
Continental	'41	4	3/4	1/16	4	16 x 7.00	25	26
Linc. & Linc. Cont.	'47	1 1/2 to 6	1/4 to 3/4	1/16-1/8	4	15 x 7.00	26	26
Linc. & Linc. Cont.	'48	1 1/2 to 6	1/4 to 3/4	1/16-1/8	4	15 x 7.00	26	26
MERCURY								
Mercury	'39	8	1	1/16	8	16 x 6.00	30	30
Mercury	'40	8	1	1/16	8	16 x 6.00	30	30
Mercury	'41	8	1	1/16	8	16 x 6.50	28	28
Mercury	'42	8	1	1/16	8	15 x 5.60	28	28
114 & 114X	'46	7 15′	1	1/16	8	16 x 6.00	28	28
118	'46	7 15′	1	1/16	8	15 x 6.50	26	26
114, 114X	'47	5 1/4 to 7 1/4	3/4 to 1 1/4	1/16-1/8	8	16 x 6.00	28	28
118	'47	5 1/4 to 7 1/4	3/4 to 1 1/4	1/16-1/8	8	15 x 6.50	26	26
118	'48	5 1/4 to 7 1/4	3/4 to 1 1/4	1/16-1/8	8	15 x 6.50	26	26
MONARCH								
Monarch	'46	7 15′	1	1/16	8	15 x 6.50	26	26
Monarch	'47	5 1/4 to 7 1/4	3/4 to 1 1/4	1/16-1/8	8	15 x 6.50	26	26
Monarch	'48	5 1/4 to 7 1/4	3/4 to 1 1/4	1/16-1/8	8	15 x 6.50	26	26
NASH								
Lafayette	'39	1 1/2	1 1/2	0	7	16 x 6.00	28	28
Ambassador 6	'39	1 1/2	1 1/2	0	7	16 x 6.25	27	27
Ambassador 8	'39	1 1/2	1 1/2	0	7	16 x 7.00	26	26
Lafayette	'40	0	1/4	1/32	4 1/2	16 x 6.00	28	28
Ambassador 6	'40	0	1/4	1/32	4 1/2	16 x 6.25	27	27
Ambassador 8	'40	0	1/4	1/32	4 1/2	15 x 7.00	26	26
Ambassador 600	'41	0-1/2		0 1/16	5 1/2	16 x 5.50	28	28
Ambassador 6	'41	0	1/4	1/32	4 1/2	16 x 6.25	28	28
Ambassador 8	'41	0	1/4	1/32	4 1/2	16 x 5.60	26	26
4240-"6"	'42	0	0	0	5 1/2	16 x 5.50	28	28
4260-"6"	'42	0	1/4	1/32	4 1/2	16 x 6.25	28	28
4280-"8"	'42	0	1/4	1/32	4 1/2	16 x 6.50	26	26
Series 4640	'46	1/4-3/4	1/4 to +3/4	1/8 3/16	7 1/2	16 x 6.00	25	25
Series 4660	'46	0 to —1/2	1/4 to +3/4	1/32-1/32	4 1/2	15 x 6.50	28	28
Series 4740	'47	1/4 to 3/4	1/4 to +3/4	1/8-3/16	7	16 x 6.00	25	25
Series 4760	'47	0 to 1/2	1/4 to +3/4	1/16-3/16	5	15 x 6.50	28	28
Series 4840	'48	1/4 to +3/4	1/4 to +3/4	1/8-3/16	7	15 x 6.40	24	24
Series 4860	'48	0 to —1/2	1/4 to +3/4	1/16-3/16	7	15 x 7.10	24	24

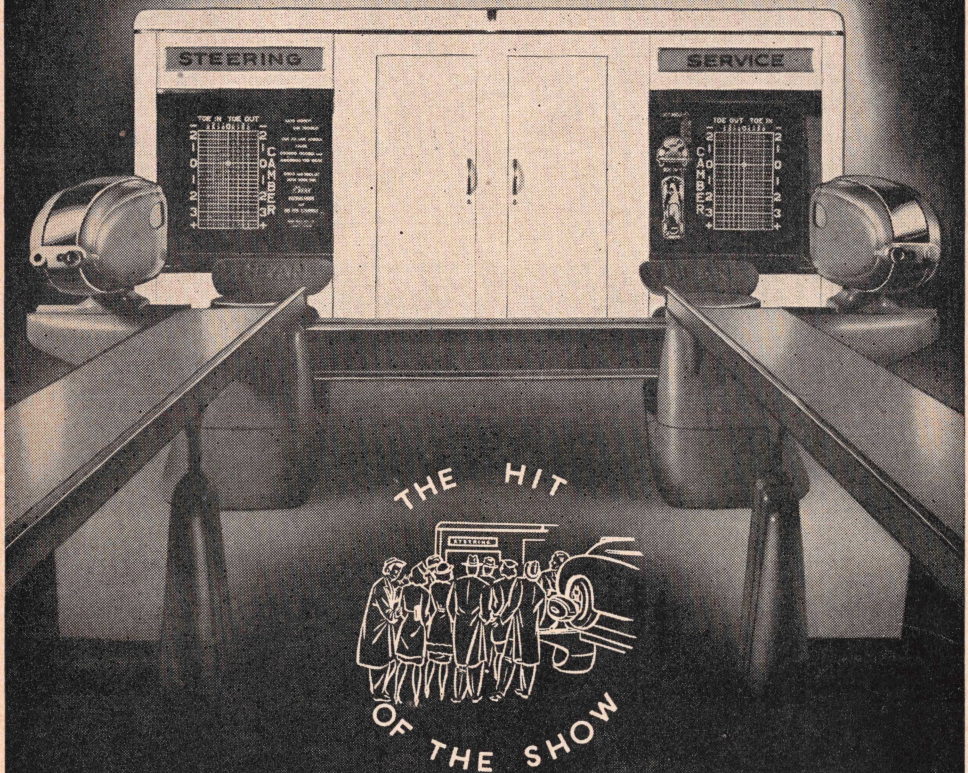
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CANADIAN REPRESENTATIVE:

S. M. ASHTON, AUTOMOTIVE EQUIPMENT • 1905 DAVENPORT RD., TORONTO, ONT.

WHEEL ALIGNMENT AND TIRES

Make and Model	Year	Caster—Degrees	Camber—Degrees	Toe-in—Inches	King Pin Inclination—Degrees	Tire Size	Pressure—Front	Pressure—Rear
OLDSMOBILE								
Six	'39	0	1/2	1/8	4°51′10″	16 x 6.00	28	28
35-00	'40	0	1/4	1/16	4°51′10″	16 x 6.00	27	27
36-00	'40	0	1/4	1/16	4°51′10″	16 x 6.50	25	25
Six	'41	0	—1/4	1/16	4°51′10″	b	c	c
Eight	'41	0	—1/4	1/16	4°51′10″	16 x 6.50	26	26
Six	'42	0	—1/4	1/16	4°51′10″	b	c	c
Eight	'42	0	—1/4	1/16	4°51′10″	16 x 6.50	26	25
Six	'46	0 to —3/4	—1/4 to +3/4	1/16-1/8	4 51′	16 x 6.50	28	28
Eight	'46	0 to —3/4	—1/4 to +3/4	1/16-1/8	4 51′	16 x 6.50	28	28
Six	'47	0 to —3/4	—3/4 to +3/4	1/16-1/8	4 51′	16x6.50@	28	28
Eight	'47	0 to —3/4	—3/4 to +3/4	1/16-1/8	4 51′	16x6.50@	28#	28#
Six, 3500 (IJ)	'48	0 to —3/4	—3/4 to +3/4	1/16-1/8	4 51′	16 x 6.50	28	28
Six, 3500 (AJ)	'48	0 to —3/4	—3/4 to +3/4	1/16-1/8	4.51′	15 x 7.10	24	24
Eight, 3700 (IJ)	'48	0 to —3/4	—3/4 to +3/4	1/16-1/8	4 51′	16 x 6.50	28	28
Eight, 3700 (AJ)	'48	0 to —3/4	—3/4 to +3/4	1/16-1/8	4 51′	15 x 7.60	24	24
Series 76, 78 & 98	'48	(Not distributed in Canada)						
PACKARD								
Six	'39	1 1/2	1/2	1/16	1 54′	16 x 6.50	22	24
Eight	'39	1 1/2	1/2	1/16	1 54′	16 x 7.00	22	24
Super 8	'39	0	1/2	1/16	1 54′	16 x 7.50	24	25
Twelve	'39	0	1	1/8	1 1/2	16 x 8.25	26	27
Six	'40	1 1/2	1/2	1/16	1 54′	16 x 6.25	26	28
Eight	'40	1 1/2	1/2	1/16	1 54′	16 x 6.50	26	28
Super 8	'40	1	1/2	1/16	1 54′	16 x 7.00	26	28
110	'41	1/2	1/2	0	2 1/2	15 x 6.50	26	28
120	'41	1/2	1/2	0	2 1/2	15 x 7.00	26	28
Super 8	'41	1/2	1/2	0	2 1/2	16 x 7.00	26	28
"6"-2000	'42	—1	1/4	0	5 1/2	15 x 6.50	26	28
"8"-2001	'42	—1	1/4	0	5 1/2	15 x 6.50	28	28
Super 8, 2003, 6	'42	—2	1/4	0	5 1/2	16 x 7.00	28	28
2100	'46	—1±1/2	0±1/4	—0 +1/16—0	5 35′	15 x 6.50	26	28
2101 & 2111	'46	—1±1/2	0±1/4	—0 +1/16—0	5 35′	15 x 6.50	28	28
2103 & 2126	'46	—1±1/2	0±1/4	—0 +1/16—0	5 35′	15 x 7.00	28	28
2126	'46	—2±1/2	0±1/4	—0 +1/16—0	5 35′	16 x 7.50	30	30
2100	'47	—1±1/2	0±1/4	—0 +1/16—0	5 35′	15x6.50	28	28
2101 & 2111	'47	—2±1/2	0±1/4	—0 +1/16—0	5 35′	16x6.50	30	30
2103 & 2106	'47	—2±1/2	0±1/4	—0 +1/16—0	5 35′	16x7.00	30	30
2126	'47	—2±1/2	0±1/4	—0 +1/16—0	5 35′	16x7.50□	30	30
2130	'47	—2±1/2	0±1/4	—0 +1/16—0	5 35′	15x7.00□	28	28
2201, 2211	'48	—1±1/2	0±1/4	0 +1/16—0	5 50′	15x7.60x	24	24
2202, 2232	'48	—1±1/2	0±1/4	0 +1/16—0	5 50′	15x8.20	24	24
2206, 2233	'48	—2±1/2	0±1/4	0 +1/16—0	5 50′	15x8.20	24	24
PLYMOUTH								
Six P-7	'39	1/2*	0	0‡	5 1/4	16 x 5.50	30	30
De Luxe 6 P-8	'39	1/2*	0	0‡	5 1/4	16 x 6.00	28	30
Six P-9	'40	1/2*	0	0‡	5 1/4	16 x 5.50	32	32

(Continued on page 144)

For key to abbreviations see page 145

SEE MOTOR MAGAZINE FOR LATEST TECHNICAL INFORMATION
. . . THE MOST COMPLETE MECHANICAL SERVICE AVAILABLE IN CANADA

WHEEL ALIGNMENT AND TIRES

Make and Model	Year	Caster—Degrees	Camber—Degrees	Toe-in—Inches	King Pin Inclination—Degrees	Tire Size	Pressure—Front	Pressure—Rear
PLYMOUTH—Continued								
De Luxe 6 P-10	'40	1/2*	0	0‡	5 1/4	16 x 6.00	28	28
Roadking P-11	'41	0*	+1/4	0‡	4 3/4	16 x 6.00	28	28
De Luxe P-12	'41	0*	+1/4	0‡	4 3/4	16 x 6.00	28	28
De Luxe P-14	'42	0*	+1/4	0‡	4 3/4	16 x 6.00	28	28
P-15	'46	0±1	+1/4	0	4 3/4-6	16 x 6.00	28	28
P-15	'47	—1 to +1*	0 to +3/4P	0-1/16	4 3/4-6	16 x 6.00	28	28
P-15	'48	—1 to +1*	0 to +3/4P	0-1/16	4 3/4-6	15 x 6.70	24	24
PONTIAC								
Chieftain	'39	0	1/2	1/8	4°51'10"	16 x 6.00	28	28
Arrow	'39	2 1/4	1	3/32	7 1/64	16 x 6.00	26	28
Special 25-00	'40	1/2	3/8	0	4 5/16	16 x 6.00	26	28
Arrow	'40	2 1/4	1	5/64	7 1/16	16 x 6.00	26	28
Fleetleader	'41	0	—1/4	0	4 3/4	16 x 6.00	26	28
Torpedo 6	'41	—1/2	0	0	4 3/4	16 x 6.00	26	28
Fleetleader 6	'42	0	—1/4	0	4 3/4	16 x 6.00	26	28
Torpedo 6 & De Luxe	'42	—1/2	0	0	x	16 x 6.00	26	28
Six	'46	0±1/2	—1/4±1/2	0-1/16	4 3/8-4 7/8	16 x 6.00y	26z	26z
Eight	'46	—1/2 to —1	1/4 to —1/4	0-1/16	4 3/8-4 7/8	16 x 6.00y	28	28
Six	'47	—1/2 to —1§	+1/4 to —1/4§§	0-1/16	4 3/8-4 7/8	†††	†††	†††
Eight	'47	—1/2 to —1§§	+1/4 to —1/4§§	0-1/16	4 3/8-4 7/8	†††	†††	†††
Six 2000-2200....(1J)	'48	—0±1/2	—1/4±1/2	0-1/16	4 3/8-4 7/8	16 x 6.00	28	28
Six 2000-2200....(AJ)	'48	—0±1/2	—4±1/2	0-1/16	4 3/8-4 7/8	15 x 6.70	24	24
Six 2500....(1J)	'48	—1/2 to —1	+1/4 to —1/4§§	0-1/16	5	16 x 6.00	28	28
Eight 2700....(AJ)	'48	—1/2 to —1	+1/4 to —1/4§§	0-1/16	5	15 x 7.10	24	24

N.B. Fleetleaders (1941-2-6-7-8) are 20 and 22 Series; Torpedo 6 & 8 (1941-2-6-7-8) are 25 and 27 Series respectively. Streamliner 6 & 8 (1941-2-6-7-8) are 26 and 28 Series respectively; Streamliner 6 & 8 (1948) not distributed in Canada.

STUDEBAKER								
Commander 6 (9A)	'39	1/4	1/2	1/8	5 1/2	16x6.00	30	30
President 8 (5C)	'39	1/4	1/2	1/8	5 1/2	16x6.50	30	30
Champion "G"	'39	5 1/2	1/2	1/8	5 1/2	16x5.50	26	26
Commander 6 (10A)	'40	1/4	1/2	1/8	5 1/2	16x6.25	30	30
President 8 (6C)	'40	1/4	1/2	1/8	5 1/2	16x6.50	30	30
Champion 2-G	'40	1	1/2	1/8	5 1/2	16x5.50	26	30
Commander 6 (11A)	'41	—1/4	1/2	1/8	5 1/2	16x6.25	28	28
Champion 6 3-G	'41	1	1/2	1/8	5 1/2	16x5.50	26	30
Commander 6 (12A)	'42	—1/4	1/2	1/8	5 1/2	16x6.25	28	28
President 8 (8C)	'42	—1/4	1/2	1/8	5 1/2	15x7.00	26	26
Champion 6 (4G)	'42	1	1/2	1/8	5 1/2	16x5.50	26	28
Skyway, 5G	'46	1	1/2	1/8	5 1/2	16x5.50	26	28
President 8 (8C)	'46	—1/4	1/2	1/8	5 1/2	16x7.00	28	28
Champion 6G	'47	1 1/2N	1/2	1/16-1/8	5 1/2	15x5.50	28	26
Commander 14A	'47	1 1/2N	1/2	1/16-1/8	5 1/2	15x5.60	24	20
Champion 7G	'48	0 to +1	0 to 1$$	1/16-1/8	5 1/2	15 x 5.50	28	26
Commander 15A	'48	0 to + 1$	0 to 11$$	1/16-1/8	5 1/2	15 x 6.50	24	24

For key to abbreviations see page 145

SEE MOTOR MAGAZINE FOR LATEST TECHNICAL INFORMATION
. . . THE MOST COMPLETE MECHANICAL SERVICE AVAILABLE IN CANADA

WHEEL ALIGNMENT AND TIRES

Make and Model	Year	Caster—Degrees	Camber—Degrees	Toe-in—Inches	King Pin Inclination—Degrees	Tire Size	Pressure—Front	Pressure—Rear
WILLYS								
Four-48	'39	3	2	3/32	7½	16 x 5.50	28	28
Overland 39	'39	3	2	1/8	7½	16 x 5.50	26	26
Willys 440	'40	3	2	1/16	7½	16 x 5.00	28	28
Willys Americar	'41	3	2	1/32	7½	16 x 5.50	26	26
Willys Americar	'42	3	2	1/32	7½	16 x 5.50	26	28
CJ-2A Universal Jeep	'45	3	1½	3/64-3/32	7½	16 x 6.00	28	28
CJ-2A Universal Jeep	'47	3	1½	3/64-3/32	7½	16 x 6.00	(z)	(z)
4-63 Station Wagon	'47	1	1	1/16-1/8	5	15 x 6.00	28-30	28-30
CJ-2A	'48	3	1½	3/64-3/32	7½	16 x 6.00	26	28
4-63	'48	1	1¼-1¾	1/16-1/8	5	15 x 6.70	20	24
2-WD	'48	4 45′	1	3/64-3/32	7½	16 x 6.50□	30	45
4-WD	'48	3	1½	3/64-3/32	7½	16 x 7.00□	30	45
6-63	'48	1	1¼-1¾	1/16-1/8	5	15 x 6.70	20	24

ABBREVIATIONS

A=C40, 15x7.50.

AJ=After jobs.

b=Series 3500, 16x6.00; series 3600, 16x6.50.

c=Series 3500, 27 pounds; series 3600, 25 pounds.

e=16x6.50 (30 pounds front and rear); 15x 7.00 (28 pounds front and rear) depending upon model.

IJ=First jobs.

K=Models 60S, 61, 62-15x7.00; model 75-16x7.50.

N=Normal.

P=Plus ¼° preferred (no passenger load).

(P)=Packard 2232, 15x7.00 used only on body styles 2279, 2271, 2276, 2277 and 2279. 16x7.00, 6 ply, used on 2250, 2251. 16x7.50, 6 ply, used on 2213.

T=Also 15x7.10 (24 pounds pressure).

W=In winter inflate two pounds higher.

X=Series 51, 53-16x6.00; series 52, 54-15x6.50.

x=Torpedo 6, 4¾°; Deluxe 5½-6°.

(x)=Four ply.

Y=16x6.00-26 pounds cold, 29 pounds hot.
15x6.50-26 pounds cold, 29 pounds hot.

y=Series 2600, 2800-16x6.50.

Z=16x6.00-30 pounds cold, 33 pounds hot.
15x6.50-30 pounds cold, 33 pounds hot.

z=Series 2500-28 pounds.

(z)=CJ-2A, Universal Jeep-front and rear; Full pay load 28-30 pounds. Ordinary service 20-22 pounds, farm work 18-20 pounds.

*=Non-adjustable.

**=At ⅜° camber.

†=D 24 seven passenger sedan-16x6.50, 28 lbs. pressure front and rear.

‡‡=Zero preferred.

‡‡‡=¼ preferred.

††Series 61,62,60S. Series 75 passenger car–24 and 32. 75 commercial, depends on body.

††† Series 2500, 2700, 2800, 6.50 x16; 28 pounds front and rear. Series 2000, 2200–6.00x16;26 front, 28 rear.

‡=With weegee board.

∅=After series 6423870, 5421704, 8430644, 3421275-positive ½ to negative ½°.

§=¾° desired.

§§=0° desired.

□=Six ply.

□□=Four ply.

@=Six-series 3500, 16x6.00; series 76, 16x6.50.
Eight-series 78, 16x6.50; series 98, 15x7.00.

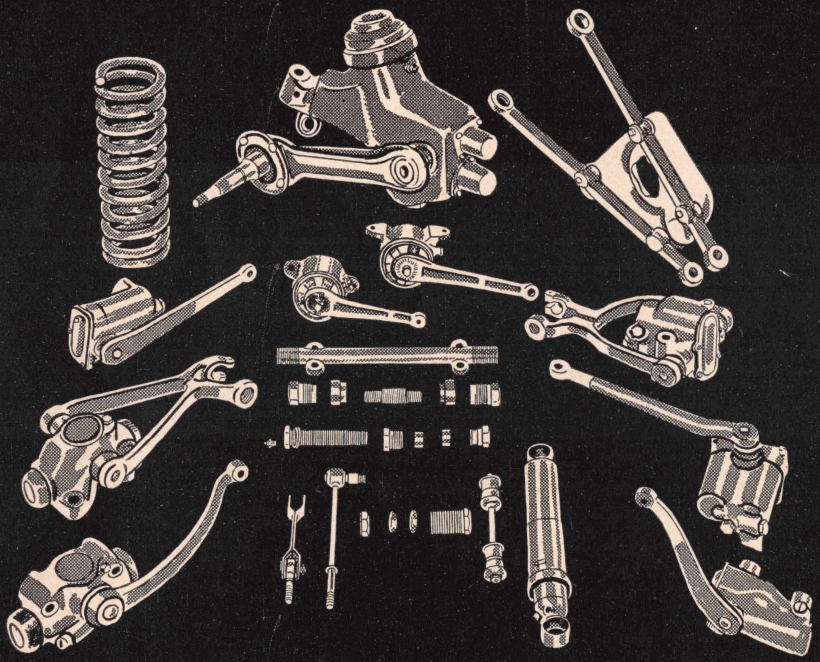
#=Oldsmobile eight, series 98, front and rear tire pressure 24 pounds

$=After serial numbers[5] 4276053, 4276102, 4276243 caster is 2° to 3°.

$$=With ½° more on the left side of car.

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A Complete Service



SHOCK ABSORBERS ☆ KNEE ACTION UNITS

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SHOCK ABSORBER SERVICE

SHOCK ABSORBERS are not an accessory—they are built into the suspension system to give the correct degree of control for safe and comfortable operation of the vehicle. Modern cars cannot be controlled properly, even on paved streets, without efficient shock absorbers.

It is admitted that inoperative shock absorbers will cause poor riding and discomfort to the passengers. But, that is not the all important point—they are DANGEROUS. Body sway, front wheel shimmy, steering wheel fight and high speed vibration, are some of the usual results when shock absorber fluid is low, linkage worn or broken. Excessive bouncing allows the rear wheels to spin while in the air, causing rubber to scuff off when they again contact the road; also, loss of traction will lower gasoline mileage. Free uncontrolled movement, due to weak shock absorbers, may strain the car springs beyond endurance and cause breakage. When shock absorbers do not operate properly the net results are dangerous, costly and tiring driving conditions.

A quick check of shock absorber efficiency can be made on the service floor by bouncing each corner of the car. The body should move freely, but come to rest quickly when released. If there is evidence of noisy operation, check for worn link bushings, broken linkage or shock absorbers loose on car frame. Also check for dampness, which would indicate leakage of fluid, in which case the units should be removed for repair.

With the telescoping type of shock absorbers used on most cars since 1940 it is very important that the cylinders be refilled with the exact amount of fluid recommended by the manufacturer. This means that the units must be dismounted and filled at the bench, using an accurate graduated measure. As special equipment is required for this work many service stations prefer to install exchange units which have been reconditioned by a specialized shop.

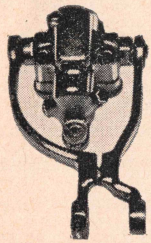
SEE MOTOR MAGAZINE FOR LATEST TECHNICAL INFORMATION
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COOLING AND LUBRICATION

Make and Model	Year	Cooling System—Capacity, Imp. Qts.	Lower Radiator Hose—Diameter and Length	Upper Radiator Hose—Diameter and Length	Fan Belt Type and Size	Crankcase Capacity—Imp. Qts.	S.A.E. Grade—Summer	S.A.E. Grade—Winter	Transmission Oil Capacity—Lbs.	S.A.E. Grade—Summer	S.A.E. Grade—Winter	Rear Axle Oil Capacity—Lbs.	S.A.E. Grade—Summer	S.A.E. Grade—Winter
AUSTIN (English)														
A.40	'48	12½	—	—	ET	7½	P 30	10W	2¼	P 50	30	2¾	EP140	EP90
BUICK														
44 Special	'39	11	17/16xE	19/16xE	V-42 27/16x25/32	5	20	10W	1½	90	80	3	Hy90	Hy80
46 Century	'39	14	19/16xE	19/16xE	V-44x23/32	6¾	20	10W	2	160	90	3	Hy90	Hy80
48 Roadmaster	'39	14	19/16xE	19/16xE	V-44x29/32	6¾	20	10W	2	160	90	4	Hy90	Hy80
49 Limited	'39	14	19/16xE	19/16xE	V-44x29/32	6¾	20	10W	2	160	90	4	Hy90	Hy80
44-00 & 45-00	'40	11	17/16xE	19/16xE	V-42 13/16x25/32	5	20	10W	1½	90	80	3	90	80
47 Roadmaster	'40	14	19/16xE	19/16xE	V-44x23/32	6¾	20	10W	2	90	80	3	90	80
Sp. 44; Sup. 45	'41	11	19/16xE	19/16xE	V-451/2x53/64	5	20	10W	1½	EP90	EP80	3	Hy90	Hy80
Series 46, 47	'41	14	19/16xE	19/16xE	V-491/2x15/16	6¾	20	10W	2¼	EP90	EP80	3	Hy90	Hy80
Series 49	'41	14	19/16xE	19/16xE	V-491/2x15/16	6¾	20	10W	2¼	EP90	EP80	3	Hy90	Hy80
Series 44	'42	11	19/16xE	19/16xE	V-451/2x53/64	5	20	10W	1½	EP90	EP80	3	Hy90	Hy80
Series 46	'42	14	19/16xE	19/16xE	V-491/2x15/16	6¾	20	10W	2¼	EP90	EP80	3	Hy90	Hy80
Series 50	'46	11	19/16xE	19/16xE	—	4¾	20	10W	1¾	EP90	EP80	3	Hy90	Hy80

For key to abbreviations see page 157 *(Continued on Page 149)*

Don't let extra profits pass you by...

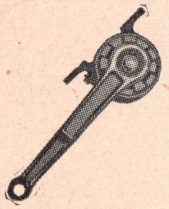


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★ *Turn to page 88 for more information*

COOLING AND LUBRICATION

Make and Model	Year	Cooling System—Capacity, Imp. Qts.	Lower Radiator Hose—Diameter and Length	Upper Radiator Hose—Diameter and Length	Fan Belt Type and Size	Crankcase Capacity—Imp. Qts.	S.A.E. Grade—Summer	S.A.E. Grade—Winter	Transmission Oil Capacity—Lbs.	S.A.E. Grade—Summer	S.A.E. Grade—Winter	Rear Axle Oil Capacity—Lbs.	S.A.E. Grade—Summer	S.A.E. Grade—Winter
BUICK—Continued														
Series 70	'46	14	1 9/16xE	1 9/16xE	—	6	20	10W	2 1/2	EP90	EP80	3	Hy90	Hy80
Series 40	'47	11	1 9/16xE	1 9/16xE	V	4 3/4	20	10W	1 3/4	EP90	EP80	3	Hy90	Hy80
Series 50	'47	11	1 9/16xE	1 9/16xE	V	4 3/4	20	10W	1 3/4	EP90	EP80	3	Hy90	Hy80
Series 70	'47	14	1 9/16xE	1 9/16xE	V	6	20	10W	2 1/2	EP90	EP80	3	Hy90	Hy80
Series 40, 50, 70	'48	(Not distributed in Canada)												
CADILLAC														
V-8 61	'39	20	2x7 1/4	1 1/4x10 1/4	V-43 1/2x1 1/64	6	20	10W	2	EP90	EP90	4	EP—	EP—
V-8 60S	'39	20	2x7 1/4	1 1/4x10 3/4	V-43 1/2x1 1/64	6	20	10W	2	EP90	EP90	4	EP160	EP90
V-8 75	'39	20	2x7 1/4	1 1/4x10 3/4	V-43 1/4x1 1/64	6	20	10W	2	EP90	EP90	4	EP160	EP90
V-16 90	'39	25	1 3/4(M)	1 1/2x10 1/4	V-49 5/8x5/8	8 1/2	20	10W	2	EP90	EP90	5	EP160	EP90
V-8 72	'40	20	2x7 1/4	1 1/4x10 1/4	V-43 1/2x1 1/64	6	20	10W	2	EP90	EP90	4	EP—	EP—
V-8 60S	'40	20	2x7 1/4	1 1/4x10 3/4	V-43 1/2x1 1/64	6	20	10W	2	EP90	EP90	4	EP160	EP90
V-8 75	'40	20	2x7 1/4	1 1/4x10 3/4	V-43 1/4x1 1/64	6	20	10W	2	EP90	EP90	4	EP160	EP90
All Series	'41	21	2x(M)	1 1/4x18	V-34 1/2x1 1/64	6	20	10W	2	EP90	EP90	4	EP90	EP90
All Series	'42	21	2x(M)	N	V-35 1/2x1 1/64	6	20	10W	3.3	EP90	EP90	4	EP90	EP90
V-8	'46	21	2x8 1/8	1 1/4xX	V-34 1/2x1 1/64	6	20	10W	3.3	EP90	EP90	4	EP90	EP90
V-8	'47	20 3/4	2x8 1/8	1 1/4xX	V-34 1/2x1 1/64	5 3/4	20	10W	3.3§§	EP90	EP90	4 1/16	90	90
V-8	'48	(Not distributed in Canada)												
CHEVROLET														
Six	'39	11 1/2	(k)	1 1/4x5 5/8	V-42 7/8x1 1/16	4 1/4	20	10W	1 1/2	90	80	2 1/2	Hy90	Hy80
Six	'40	11 1/2	1 7/16x2 3/4	1 1/4x5 5/8	V-42 7/8x1 1/16	4 1/4	20	10W	1 1/2	90	80	3	90	80
Six	'41	11 1/2	1 7/16x8	1 1/4x5 5/8	V-42 7/8x1 1/16	4 1/4	20	10W	1 1/4	90	80	2 3/4	Hy	Hy
Six	'42	11 1/2	1 7/16x8	1 1/4x5 5/8	V-42 7/8x1 1/16	4 1/4	20	10W	1 1/4	90	80	2 3/4	Hy	Hy
Six	'46	11 1/2	1 1/2x4 7/16	1 1/4x6 3/4	42 7/8x1 1/16	4 1/4	20	10W	1 1/4	90	80	3 3/4	Hy	Hy
Six	'47	12 1/2	1 1/2x4 7/16	1 1/4x6 3/4	A	4 1/4	20	10W	1 1/4	90	80	2 3/4	—	—
Six	'48	12 1/2	1 1/2x4 7/16	1 1/4x6 3/4	A	4 1/4	20	10W	1 1/4	90	80	3 1/2	Hy90	Hy80
CHRYSLER														
Six C-22	'39	17	1 1/2x(c)	1 3/4x6	—	4	30	20W	2	160	90	2 3/4	EP90	EP80
De L. 8 C-23	'39	20	1 3/4x(e)	1 3/4x5 1/4	—	5	30	20W	3	160	90	2 3/4	EP90	EP80
Cus. Imp. C-24	'39	20	1 3/4x(e)	1 3/4x5 1/4	—	5	30	20W	3 3/4	160	90	5 1/4	EP90	EP80
Six C-25	'40	14	1 1/2x(r)	1 3/4x8	—	4	30	20W	2	160	90	2 3/4	EP90	EP80
De Luxe C-26	'40	20	1 3/4x(s)	1 3/4x5 3/4	—	5	30	20W	2	160	90	2 3/4	EP90	EP80
Cus. Imp. C-27	'40	20	1 3/4x(s)	1 3/4x5 3/4	—	5	30	20W	3 1/4	160	90	3 3/4	EP90	EP80
Royal 6 C-28	'41	15	1 1/2xcc	1 3/4x6	—	4	30	20W	2 1/8	90	80	2 3/4	EP90	EP80
N.Y. 8 C-30	'41	20	1 3/4xee	1 3/4x5 1/2	—	5	30	20W	2 1/8	**	**	2 3/4	EP90	EP80
Cr. Imp. C-33	'41	20	1 3/4xee	1 3/4x5 1/2	—	5	30	20W	3 1/8	**	**	4 1/8	EP90	EP80
Royal 6 C-34	'42	15	1 1/2xcc	1 3/4x6 1/2	—	4	30	20W	2 1/8	**	**	2 3/4	EP90	EP80
N.Y. 8 C-36	'42	20	1 3/4xee	1 3/4x5 1/2	—	5	30	20W	2 1/8	**	**	2 3/4	EP90	EP80
Cr. Imp. C-37	'42	20	1 3/4xee	1 3/4x5 1/2	—	5	30	20W	3 1/8	**	**	4 1/8	EP90	EP80
C-38W, C-38S	'46	15	1 1/2x(cd)	1 3/4x6 3/4	V-18 13/32x3/4	4	‡‡	‡‡	2 1/2(w)	90#	80#	2 3/4	Hy90	Hy80
Six C-38W, C-38S	'47	15	1 1/2x(cd)	1 3/4x6 3/4	V-18 13/32x3/4	4	20	10W	2 1/8 #	90#	80#	2 3/4	Hy80	Hy80
Eight C-39, C-40	'47	22	1 3/4x(cb)	1 3/4x6 1/2	V-18x3/4	5	20	10W	2 1/8 #	90#	80#	3	Hy90	Hy80
C-38W, C-38S	'48	15	1 1/2x(cd)	1 3/4x6 3/4	V-18 13/32x3/4	4	20	10W	2 1/8 #	90#	80#	2 3/4	Hy80	Hy80
C-39, C-40	'48	22	1 3/4x(cb)	1 3/4x6 1/2	V-18x3/4	5	20	10W	2 1/8 #	90#	80#	3	Hy90	Hy80
CROSLEY														
Four	'48	4	1 1/16x16 1/2	1 1/16x11 3/8	V-34 34x.719	2.8	CR	CR	1 1/2P	90	90	1P	90	90

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For key to abbreviations see page 157

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. . . THE MOST COMPLETE MECHANICAL SERVICE AVAILABLE IN CANADA

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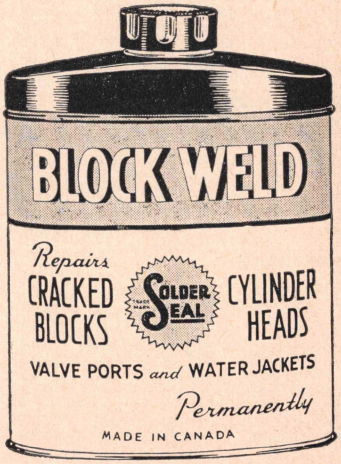


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COOLING AND LUBRICATION

Make and Model	Year	Cooling System—Capacity, Imp. Qts.	Lower Radiator Hose—Diameter and Length	Upper Radiator Hose—Diameter and Length	Fan Belt Type and Size	Crankcase Capacity—Imp. Qts.	S.A.E. Grade—Summer	S.A.E. Grade—Winter	Transmission Oil Capacity—Lbs.	S.A.E. Grade—Summer	S.A.E. Grade—Winter	Rear Axle Oil Capacity—Lbs.	S.A.E. Grade—Summer	S.A.E. Grade—Winter
DE SOTO														
Six S-6	'39	16	1½x(c)	1¾x6	—	4	30	20W	2	160	90	2¾	EP90	EP80
Six S-7	'40	15	1½x(r)	1¾x8	—	4	30	20W	2	160	90	2¾	EP90	EP80
Six S-8	'41	15	1½xR	1¾x6	V-48 9/16x 3/4	4	30	20W	2⅛	**	**	2¾	EP90	EP80
Six S-10	'42	15	1½xR	1¾x6	V-48 9/16x 3/4	4	30	20W	2⅛	**	**	2¾	EP90	EP80
S-11	'46	15	1½x(cd)	1¾x6	V-18 13/32x 3/4	4	††	††	2½	10W	10W	2¾	Hy90	Hy80
S-11	'47	15	1½x(cd)	1¾x6¾	V-18 13/32x 3/4	4	20	10W	2½	10W	10W	2¾	Hy90	Hy80
S-11	'48	15	1½x(cd)	1¾x6¾	V-18 13/32x 3/4	4	20	10W	2½	10W	10W	2¾	Hy90	Hy80
DODGE														
De L. 6 D-12	'39	11	1½x(l)	1¾x6	—	4	30	20W	2	160	90	2¾	EP90	EP80
Std. 6 D-13	'39	11	1½x(l)	1¾x10½	—	4	30	20W	2	160	90	2¾	EP90	EP80
Big 6 D-11	'39	12.5	1½x(n)	1¾x8	—	4	30	20W	2	160	90	2¾	EP90	EP80
Std. 6 D-15	'40	14	1½xr	1¾x8	—	4	30	20W	2	160	90	2¾	EP90	EP80
De L. 6 D 16	'40	14	1½x(r)	1¾x8	—	4	30	20W	2	160	90	2¾	EP90	EP80
Big 6 D-14	'40	16	1½x(r)	1¾x8	—	4	30	20W	2	160	90	2¾	EP90	EP80
Kings. 6 D-20	'41	14	1½xcc	1¾x6	—	4	30	20W	2⅛	90	80	2¾	EP90	EP80
De L. 6 D 21	'41	14	1½xcc	1¾x6	—	4	30	20W	2⅛	90	80	2¾	EP90	EP80
L. Liner D 19	'41	16	1½xcc	1¾x6	—	4	30**	20W**	2⅛	90	80	2¾	EP90	EP80
De Luxe D 23	'42	14	1½xcxc	1¾x6	—	4	30	20W	2⅛	90	80	2¾	EP90	EP80
Custom D-22	'42	14	1½xcxc	1¾x6	—	4	30	20W	2⅛	90	80	2¾	EP90	EP80
D-24	'46	13	1½x(cc)	1¾x6	V-18 13/32x 3/4	4	††	††	2⅛	90	90Ø	2¾	Hy90	Hy80
D-25	'46	14	1½x(cc)	1¾x6	V-18 13/32x 3/4	4	††	††	2⅛	90	90Ø	2¾r	Hy90	Hy80
D-25	'47	14	1½x(C)	1¾x6	V-18 13/32x 3/4	4	20	10W	2⅓	90	80	2¾	Hy90	Hy80
D-24	'47	14	1½x(C)	1¾x6	V-18 13/32x 3/4	4	20	10W	2⅓	90	80	2¾r	Hy90	Hy80
D-25	'48	14	1½x(C)	1¾x6	V-18 13/32x 3/4	4	20	10W	2⅓	90	80	2¾	Hy90	Hy80
D-24	'48	14	1½x(C)	1¾x6	V-18 13/32x 3/4	4	20	10W	2⅓	90	80	2¾r	Hy90	Hy80
FORD														
V-8 85	'39	17	1¾x7 86	1½-19 60	V-54.31x.460	4	30*	20W	2¼	EP160	EP90	2¼	EP160	EP90
V-8 85	'40	18	1¾x7.86	1¾x19.60	V-54.31x.460	4	30*	20W	2¼	EP160	EP90	2¼	EP160	EP90
V-8 85	'41	AA	1¾x7⅞	1¾x19⅝	V-51 1/4x 5/8	4	30	20W	2¾	90	80	2½	90	80
V-8 85	'42	AA	1¾x5¾	1¾x22	V-36x 5/8	4	30	20W	2¾	90	80	2½	90	80
De Luxe	'46	17	1.75	1 75	V-36 33x 51/64	4¾	30	20	2¾	EP90	EP80	2 1	EP140	EP90
Super De Luxe	'46	17	1 75	1 75	V-36 33x 51/64	4¼	30	20	2¾	EP90	EP80	2 1	EP140	EP90
DeL. & Sup. DeL.	'47	17	1¾x5¾	1¾x18⅛	V-36 33x 51/64	9½	30	20	2.75	EP90	EP80	2.1	EP140	EP90
DeL. & Sup DeL.	'48	17	1¾x5¾	1¾x18⅛	V-36 33x 51/64	9½	30	20	2.75	EP90	EP80	2.1	EP140	EP90
FRAZER														
F-47	'47	15	1½–	1½	W-42	5U	20	10W	2½	90	80	3	90	80W
F-47,47C,485,486	'48	15Us	1½x2⅝	1½x10⅞	V45 43x 3/8z	5U	20	10W	2.5	90	80	3	Hy90	Hy 80
GRAHAM														
Six-96	'39	12	Special Moulded		V-43 3x 13/32	4	40	20W	4†	160	80	3	Hy90	Hy80
Six-97	'39	12	Special Moulded		V-43 3x 13/32	4	40	20W	4†	160	80	3	Hy90	Hy80
Six-107	'40	12	Special Moulded		V-43 3x 13/32	4	30	20W	4†	160	80	3	Hy90	Hy80
Six-108	'40	12	Special Moulded		V-43 3x 13/32	4	30	20W	4†	160	80	3	Hy90	Hy80

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For key to abbreviations see page 157

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COOLING AND LUBRICATION

Make and Model	Year	Cooling System—Capacity, Imp. Qts.	Lower Radiator Hose—Diameter and Length	Upper Radiator Hose—Diameter and Length	Fan Belt Type and Size	Crankcase Capacity—Imp. Qts.	S.A.E. Grade—Summer	S.A.E. Grade—Winter	Transmission Oil Capacity—Lbs.	S.A.E. Grade—Summer	S.A.E. Grade—Winter	Rear Axle Oil Capacity—Lbs.	S.A.E. Grade—Summer	S.A.E. Grade—Winter
HUDSON														
Six-93	'39	10	1 5/8 x 3	1 1/2 x 10	V-44 3/8 x 25 25/32	5	30	20W	3	EP90	EP80	3	EP90	EP90
Six-91	'39	10	1 5/8 x 8 1/2	1 1/2 x 10	V-44 3/8 x 25 25/32	5	30	20W	3	EP90	EP80	3	EP90	EP90
Six-92	'39	10	1 5/8 x 8 1/2	1 1/2 x 10	V-44 3/8 x 25 25/32	5	30	20W	3	EP90	EP80	3	EP90	EP90
Eight-95	39	13 3/4	1 5/8 x 3	1 1/2 x 10	V-44 3/8 x 25 25/32	7	30	20W	3	EP90	EP80	3	EP90	EP90
Eight-97	'39	13 3/4	1 5/8 x 3	1 1/2 x 10	V-44 3/8 x 25 25/32	7	30	20W	3	EP90	EP80	3	EP90	EP90
Six-90	'39	10	1 5/8 x 8 1/4	1 1/2 x 10	V-44 3/8 x 25 25/32	5	30	20W	3	EP90	EP80	3	EP90	EP90
Six-98	'39	10	1 5/8 x 8 1/4	1 1/2 x 10	V-44 3/8 x 25 25/32	5	30	20W	3	EP90	EP80	3	EP90	EP90
Six-41	'40	10 3/4	1 5/8 x 8 1/2	1 1/2 x 10	V-44 3/8 x 25 25/32	5	30	20W	2 1/4	EP90	EP80	2 3/4	EP90	EP90
Six-43	'40	10 3/4	1 5/8 x 8 1/2	1 1/2 x 10	V-44 3/8 x 25 25/32	5	30	20W	2 1/4	EP90	EP80	2 3/4	EP90	EP90
Six-48	'40	10 3/4	1 5/8 x 8 1/2	1 1/2 x 10	V-44 3/8 x 25 25/32	5	30	20W	2 1/4	EP90	EP80	2 3/4	EP90	EP90
Eight-44	'40	15	1 5/8 x 10	1 1/2 x 7 3/4	V-44 3/8 x 25 25/32	7	30	20W	2 1/4	EP90	EP80	2 3/4	EP90	EP90
Eight-47	'40	15	1 5/8 x 10	1 1/2 x 7 3/4	V-44 3/8 x 25 25/32	7	30	20W	2 1/4	EP90	EP80	2 3/4	EP90	EP90
Six-40	'40	10 3/4	1 5/8 x 8 1/2	1 1/2 x 10	V-44 3/8 x 25 25/32	5	30	20W	2 1/4	EP90	EP80	2 3/4	EP90	EP90
Six-10	'41	10 3/4	1 5/8 x 8 1/2	1 1/2 x 10	V-44 21/32 x 51/64	3 3/4	30	20W	2††	EP90	EP80	2 3/4	EP90	EP90
Six-11, 12, 18	'41	10 3/4	1 5/8 x 8 1/2	1 1/2 x 10	V-44 21/32 x 51/64	3 3/4	30	20W	2††	EP90	EP80	2 3/4	EP90	EP90
Eight	'41	15	1 5/8 x 10	1 1/2 x 7 3/4	V-44 21/32 x 51/64	6	30	20W	2††	EP90	EP80	2 3/4	EP90	EP90
"6"—20	'42	10 3/4	1 5/8 x 8 1/2	1 1/2 x 10	V-44 21/32 x 51/64	3 3/4	30	20W	2††	EP90	EP80	2 3/4	EP90	EP90
"6"-18, 21, 22	'42	10 3/4	1 5/8 x 8 1/2	1 1/2 x 10	V-44 21/32 x 51/64	3 3/4	30	20W	2††	EP90	EP80	2 3/4	EP90	EP90
Eights	'42	15	1 5/8 x 10	1 1/2 x 7 3/4	V-44 21/32 x 51/64	6	30	20W	2††	EP90	EP80	2 3/4	EP90	EP90
Six-51, 52	'46	10 3/4	1 5/8 x 8 1/2	1 1/2 x 10	V-44 21/32 x 51/64	4 1/2	30	20W	2††	EP90	EP80	2 3/4	EP90	EP90
Eight-53, 54	'46	15	1 5/8 x 10	1 1/2 x 7 3/4	V-44 21/32 x 51/64	7	30	20W	2††	EP90	EP80	2 3/4	EP90	EP90
Six-171, 172	'47	10 3/4	1 5/8 x 8 1/2	1 1/2 x 10	V-44 21/32 x 51/64	4 1/2	30	20W	2††	EP90	EP80	2 3/4	EP90	EP90
Eight-173, 174	'47	15	1 5/8 x 10	1 1/2 x 7 3/4	V-44 21/32 x 51/64	7	30	20W	2††	EP90	EP80	2 3/4	EP90	EP90
Series 481	'48	15	1 5/8 x 4 ± 1/16	—	V-41.5x.790	6	30	10W	2	EP90	EP80	3 1/2	Hy90	Hy90
Series 482	'48	15	1 5/8 x 4 ± 1/16	—	V-41.5x.790	6	30	10W	2	EP90	EP80	3 1/2	Hy90	Hy90
Series 483	'48	15	1 5/8 x 4 ± 1/16	—	V-41.5x.790	6	30	10W	2	EP90	EP80	3 1/2	Hy90	Hy90
Series 484	'48	15	1 5/8 x 4 ± 1/16	—	V-41.5x.790	6	30	10W	2	EP90	EP80	3 1/2	Hy90	Hy90
HUPMOBILE														
6-922E	'39	15	1 1/2 x 9 1/4	1 1/2 x 6 5/8	V-42 x 13/16	5	30	20W	6	EP70	EP50	2	EP110	EP90
8-925H	'39	18	1 3/4 x 12 5/8	1 1/2 x 9 3/8	V-43 x 13/16	7	30	20W	7	EP70	EP50	2 3/4	EP110	EP90
KAISER														
K-100	'47	15U@	—	1 1/2 x 1 1/2	W-42	5U	20	10W	2 1/2	90	80W	3	90	80W
K-100-101-481-482	'48	15U@	1 1/2 x 2 5/8	1 1/2 x 10 7/8	V45.43x3/8z	5U	20	10W	2.5	90	80	3	Hy90	Hy80
LA SALLE														
39-50	'39	20	2x7 1/4	1 1/4 x 10 3/4	V-43 1/2 x 11/64	6	20	20W	2	EP90	EP90	4	EP—	EP—
40-50 & 40-52	'40	20	2x7 1/4	1 1/4 x 10 3/4	V-43 1/2 x 11/64	6	20	20W	2	EP90	EP90	4	EP—	EP—
LINCOLN														
Continental	'41	22 1/2	1 3/4 x 7.50	1 3/4 x—	V-53 13/32 x 5/8	4 1/4	30	10W	2 1/4	90	80	3 1/4	EP90	EP80
Linc. & Linc. Cont.	'47	21	1 1/2 x 10 3/4	1 3/4 x 6	V-55 x 11/16	9	30	10W	2 1/8	90	80	3 1/2	Hy90	Hy90
Linc. & Linc. Cont.	'48	21	1 1/2 x 10 3/4	1 3/4 x 6	V-55 x 11/16	9	30	10W	2 1/8	90	80	3 1/2	Hy90	Hy90
MERCURY														
Mercury	'39	17	1 3/4 x 7.86	1 3/4 x 19.60	V-54.31x.460	4	30*	20W	2 1/4	EP160	EP90	2 1/4	EP160	EP90
Mercury	'40	17 1/2	1 3/4 x 7.86	1 3/4 x 19.60	V-54.31x.460	4	30*	20W	2 1/4	EP160	EP90	2 1/4	EP160	EP90
Mercury	'41	BB	1 3/4 x 6 3/4	1 3/4 x 19 5/8	V-51 1/4 x 5/8	4	30	20W	2 1/4	90	80	2 1/2	90	80
Mercury	'42	BB	1 3/4 x 5 3/4	1 3/4 x 22	V-36 x 5/8	4	30	20W	2 1/4	90	80	2 1/2	90	80

(Continued on page 154)

For key to abbreviations see page 157

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. . . THE MOST COMPLETE MECHANICAL SERVICE AVAILABLE IN CANADA

COOLING AND LUBRICATION

Make and Model	Year	Cooling System—Capacity, Imp. Qts.	Lower Radiator Hose—Diameter and Length	Upper Radiator Hose—Diameter and Length	Fan Belt Type and Size	Crankcase Capacity—Imp. Qts.	S.A.E. Grade—Summer	S.A.E. Grade—Winter	Transmission Oil Capacity—Lbs.	S.A.E. Grade—Summer	S.A.E. Grade—Winter	Rear Axle Oil Capacity—Lbs.	S.A.E. Grade—Summer	S.A.E. Grade—Winter
MERCURY—Continued														
114 & 114X	'46	17	1¾	1¾	V-36 .33x51/64	4¾	30	20	2¾	EP90	EP80	2.1	EP140	EP90
118	'46	17	1¾	1¾	V-36 .33x51/64	4¾	30	20	2¾	EP90	EP80	2.1	EP140	EP90
114, 114X & 118	'47	17	1¾x5¾	1¾x18⅛	V-36x33x51/64	9½	30	20	2.75	EP90	EP80	2.1	EP140	EP90
114, 114X & 118	'48	17	1¾x5¾	1¾x18⅛	V-36x33x51/64	9½	30	20	2.75	EP90	EP80	2.1	EP140	EP90
MONARCH														
Monarch	'46	17	1¾	1¾	V-36.33x51/64	4¾	30	20	2¾	EP90	EP80	2.1	EP140	EP90
Monarch	'47	17	1¾x5¾	1¾x18⅛	V-36x33x51/64	9½	30	20	2.75	EP90	EP80	2.1	EP140	EP90
Monarch	'48	17	1¾x5¾	1¾x18⅛	V-36x33x51/64	9½	30	20	2.75	EP90	EP80	2.1	EP140	EP90
NASH														
Lafayette	'39	16⅔	½x31/4	1¾x83/4	V-483/16x25/32	5	30	10W	3½	70*	50*	4	Hy90	Hy90
Ambassador 6	'39	13	1½x31/4	1¼x71/2	V-483/16x25/32	6	30	10W	3½	70*	50*	4	Hy90	Hy90
Ambassador 8	'39	14	1½x31/4	1¼x61/2	V-481/16x25/32	6	30	10W	3½	70*	50*	6	Hy90	Hy90
Lafayette	'40	16	1½x31/4	1¾x9	V-481/16x25/32	5	30	10W	3½	70*	50*	4	Hy90	Hy90
Ambassador 6	'40	14	1½x31/4	1¾x81/4	V-481/16x25/32	6	30	10W	3½	70*	50*	4	Hy90	Hy90
Ambassador 8	'40	15	1½x31/4	1¾x61/2	V-481/16x25/32	6	30	10W	3½	70*	50*	6	Hy90	Hy90
Ambassador 600	'41	11½	1½x31/4	1½x73/4	V-4113/16	4	30	10W	1	70	50	3	Hy90	Hy90
Ambassador 6	'41	14	1½x31/4	1¾x14½	V-421/16	5	30	10W	3½	70	50	4	Hy90	Hy90
Ambassador 8	'41	13¼	1½x31/4	1¾x12	V-45	6	30	10W	3½	70	50	4	Hy90	Hy90
4240—"6"	'42	11⅔	qq	1½x73/4	V-4113/16x25/32	4⅝	30	10W	1	70	50	3	Hy90	Hy90
4260—"6"	'42	14⅝	qq	pp	V-423/16x25/32	5	30	10W	3½	70	50	3	Hy90	Hy90
4280—"8"	'42	13⅓	qq	SS	V-45x25/32	525/32	30	10W	3½	70	50	4	Hy90	Hy90
Series 4640	'46	11⅔	1½x31/4(x)	1½x73/4	4113/16x25/32	4¼	30	10W	2.7(y)	90§	80§	3	Hy90	Hy90
Series 4660	'46	14	1½x31/4(x)	1¼x15	423/16x25/32	5	30	10W	3½(z)	90§	80§	3	Hy90	Hy90
Series 4640	'47	11⅔	1½x3¼(x)	1½x73/4	4113/16x25/32	4¼	30	10W	2.7(y)	70	50	3	Hy90	Hy90
Series 4660	'47	14	1½x3¼(x)	1½x73/4	423/16x25/32	5	30	10W	3½(z)	70	50	3	Hy90	Hy90
Series 4840	'48	13	1¼x4(x)	1¼x71/2	V-3/4	4	20	10W	1.7P	70(S)	50(S)	—	Hy90	Hy80
Series 4860	'48	15	1¼x4(x)	1½x7&8	V-3/4	5	20	10W	—	70(S)	50(S)	—	Hy90	Hy80
OLDSMOBILE														
Six	'39	14	1¾x12	1½x8	V-4411/16x13/16	5	20	10W	1½	90	80	3¾	EP90	EP80
35-00 & 36-00	'40	15	1¾x12	1½x8	V-4411/16x13/16	4¼	20	10W	1½	90	80	3¾	90	80
Six	'41	14¾	1¾x13	1½x83/4	V-4411/16x13/16	4 4	20	10W	1½	90	80	3¾	Hy90	Hy80
Eight	'41	18	1¾x133/4	1½x8	V-4411/16x13/16	5	20	10W	2	90	80	2½	Hy90	Hy80
Six	'42	14¾	1¾x13	1½x83/4	V-4411/16x13/16	4 4	20	10W	1½	90	80	3¾	Hy90	Hy80
Eight	'42	18	1¾x133/4	1½x8	V-4411/16x13/16	5	20	10W	2	90	80	2½	Hy90	Hy80
Six	'46	15	1¾x13	1½x8	V-32x4411/16	4	20	10W	2	90	80	2½	Hy90	Hy80
Eight	'46	17	1¾x15	1½x71/4	V-32x4411/16	5	20	10W	2	90	80	2½	Hy90	Hy80
Six	'47	15	1¾x137/16	1½x101/8	V-32x4411/16	4	20	10W	2	90	80	2½	Hyp90	Hyp80
Eight	'47	17	1¾x14	1½x101/8	V-32x4411/16	5	20	10W	2	90	80	2½	Hyp90	Hyp80
Six	'48	15	1¾x137/16	1½x101/8	V-32x4411/16	4	20	10W	2	90	80	2½	Hyp90	Hyp80
Eight	'48	17	1¾x14	1½x101/8	V-32x4411/16	5	20	10W	2	90	80	2½	Hyp90	Hyp80
PACKARD														
Six	'39	14	1¾x3	1¾x71/2	V-491/4x3/4	5	30	20W	1¾	140	90	3½	EP110	EP80
Eight	'39	14	1¾x3	1¾x71/2	V-491/4x3/4	5	30	20W	1¾	140	90	3½	EP110	EP80
Super 8	'39	20	1¾x43/4	1¾x55/8	V-485/8x1	6¾	30	20W	1¾	140	90	5¼	EP110	EP80
Twelve	'39	33¾	2x73/4	1½x(ff)	V-501/2x3/4	8¼	30	20W	3¾	140	90	5¼	EP110	EP80
Six	'40	13½	1¾x3	1¾x8	V-491/4x3/4	4	30	20W	1¾	160	90	3½	EP110	EP80

For key to abbreviations see page 157

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COOLING AND LUBRICATION

Make and Model	Year	Cooling System—Capacity, Imp. Qts.	Lower Radiator Hose—Diameter and Length	Upper Radiator Hose—Diameter and Length	Fan Belt Type and Size	Crankcase Capacity—Imp. Qts.	S.A.E. Grade—Summer	S.A.E. Grade—Winter	Transmission Oil Capacity—Lbs.	S.A.E. Grade—Summer	S.A.E. Grade—Winter	Rear Axle Oil Capacity—Lbs.	S.A.E. Grade—Summer	S.A.E. Grade—Winter
PACKARD—Continued														
Eight	'40	14½	1¾x3	1¾x8	V-49¼x¾	5	30	20W	1¾	160	90	5¼	EP110	EP80
Super 8	'40	16	1¾x3	1¾x7	V-48⅝x1	6	30	20W	1¾	160	90	5¼	EP110	EP80
110	'41	12½	1¾x3	1¾x7½	V-49¼x¾	4	30	20W	1¾	140	90	4	Hy	Hy
120	'41	14	1¾x3	2⅛x13	V-49¼x¾	5	30	20W	1¾	140	90	5¾	Hy	Hy
Super 8	'41	16¾	1¾x3	2⅛x11½	V-52¼x1	6	30	20W	1¾	140	90	5¾	Hy	Hy
"6"—2000	'42	11⅜	1¾x3¾	1¾x12½	V-49¼x¾	4 25/32	30	20W	1¾	140	90	4	Hy	Hy
"8""—2001	'42	14 25/32	1¾x3¾	1¾x12½	V-49¼x¾	4 25/64	30	20W	1¾	140	90	5¾	Hy	Hy
Sup. 8—2003, 6	'42	16⅜	1¾x3¾	1¾x11½	V-52¼x1	5 25/32	30	20W	1¾	140	90	5¾	Hy	Hy
2100	'46	14	1¾x3¾	1¾x12⅝		5	30	10	2	140	90	4	Hy90	Hy90
2101 & 2111	'46	17	1¾x3¾	1¾x12⅝		5½	30	10	2	140	90	4	Hy90	Hy90
2103 & 2126	'46	20	1¾x3¾	1¾x11½		7	30	10	2	140	90	6¾	Hy90	Hy90
2100 & 2130	'47	14	1¾x3¾	1¾x12⅝	49 1¼x¾x42°	5	30	10	2WO	140	90	4	Hy90	Hy90
2101 & 2111	'47	17	1¾x3¾	1¾x12⅝	49 1¼x¾x42°	5½	30	10	2WO	140	90	4	Hy90	Hy90
2103, 2106 & 2126	'47	20	1¾x3¾	1¾x11½	52 1¼x1x42°	7	30	10	2WO	140	90	6¾	Hy90	Hy90
2201, 2211	'48	18U	12¼x1¾	3¾x1¾	48.6x¾x40°	6	20x	10	2	140S	90S	1¼	140S	90S
2202, 2232 (a)	'48	20U	12¼q1¾	3¾x1¾	48.6x¾x40°	6	20x	10	2	140S	90S	1¼	140S	90S
2206, 2233 (b)	'48	20U	11½x1¾	3¾x1¾	53x1x42°	7	20x	10	2	140S	90S	1¼	140S	90S
PLYMOUTH														
Stand. P-7	'39	11	1½x(d)	1¾x10½	—	4	30	20W	2	160	90	2¾	EP90	EP80
De Luxe P-8	'39	11	1½x(d)	1¾x6	—	4	30	20W	2	160	90	2¾	EP90	EP80
Stand. P-9	'40	14	1½xr	1¾x9	—	4	30	20W	2	160	90	2¾	EP90	EP80
De Luxe P-10	'40	14	1½xr	1¾x6	—	4	30	20W	2	160	90	2¾	EP90	EP80
Roadking P-11	'41	14	1½x(c)	1¾x9½	—	4	30	20W	2⅛	90	80	2¼	Hy90	Hy80
De Luxe P-12	'41	14	1½x(c)	1¾x9	—	4	30	20W	2⅛	90	80	2¾	Hy90	Hy80
De Luxe P-14	'42	14	1½x(c)	1¾x9	—	4	30	20W	2⅛	90	80	2¾	Hy90	Hy80
P-15	'46	14	1½x(cc)	1¾x6	V-18 13/64x¾	4	††	††	2⅛	90	90∅	2¾	Hy90	Hy80
P-15	'47	14	1½x(C)	1¾x6	V-18 13/64x¾	4	20	10W	2⅛	90	80	2¾	Hy90	Hy80
P-15	'48	14	1½x(C)	1¾x6	V-18 13/64x¾	4	20	10W	2⅛	90	80	2¼	Hy90	Hy80
PONTIAC														
Chieftain	'39	11¼	1½x(p)	1¼x5	V-42 7/8x11/16	4¼	20	10W	1½	90	80	3¾	Hy90	Hy80
Arrow	'39	11½	1½x(k)	1¼x5⅝	V-42 7/8x11/16	4¼	20	10W	1½	90	80	2½	Hy90	Hy80
Special 25-00	'40	14	1½x14¼	1¾x9¾	V-48¼x¾	5	20	10W	1½	90	80	3¾	90	80
Arrow	'40	11½	1 7/16x2¾	1¼x5⅝	V-42 7/8x11/16	4¼	20	10W	1½	90	80	3	90	80
Fleet'eader	'41	13½	1½x14½	1⅝xE	V-48¼x¾	5	20	10W	1¼	90	80	2¼	EP90	EP80
Torpedo 6	'41	15	1½x15½	1¾x13½	V-48¼x¾	5	20	10W	1½	90	80	3¼	EP90	EP80
Fleetleader 6	'42	12½	1½x14½	1⅝xE	V-48¼x¾	4¼	20	10W	1¼	90	80	2¼	EP90	EP80
Tor. 6 & De L.	'42	15	1½x15½	1¾x13½	V-48¼x¾	DD	20	10W	1½	90	80	GG	EP90	EP80
Six	'46	***	—	—	—	4¼	20	10W	1¼	90	80	2¼	EP90	EP80
Eight	'46	***	—	—	—	4¼	20	10W	1½	90	80	2¼	EP90	EP80
Six	'47	15	16½x1½	13½x1¾	490	4¼	20	10W	1¼	90	80	2¼	EP90	EP80
Eight	'47	16¼	13⅜x1½	8½x1¾	490	4¼	20	10W	1½	90	80	2¾	EP90	EP80
Six	'48	15	16½x1½	13½x1¾	490	4¼	20	10W	1¼	90	80	2¼	EP90	EP80
Eight	'48	16¼	13⅜x1½	8½x1¾	490	4¼	20	10W	1½	90	80	2¼	EP90	EP80

N.B. Fleetleaders (1941-2-6-7-8) are 20 and 22 Series; Torpedo 6 & 8 (1941-2-6-7-8) are 25 and 27 Series respectively.
Streamliner 6 & 8 (1941-2-6-7-8) are 26 and 28 Series respectively; Streamliner 6 & 8 (1948) not distributed in Canada.

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For key to abbreviations see page 157

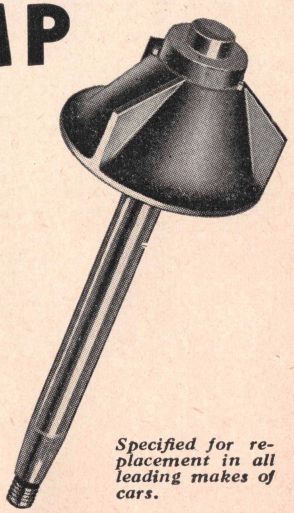
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STUDEBAKER														
Comm. 6 (9A)	'39	12	2x11	1¼x10¼	V-47½x½	4½	30	20	2	90	90	3	90	90
Pres. 8 (5C)	'39	13½	2x10½	1¼x11½	V-47½x13/16	6½	30	20	2	90	90	3	90	90
Champion "G"	'39	8½	1¼xE	1¼x8¼	V-37¾x11/16	4	30	20	1⅜	90	90	2½	90	90
Comm. 6 (10A)	'40	12	2xE	1¼x11½	V-47½x53/64	5	30	20	2	90	90	3	90	90
Pres. 8 (6C)	'40	14	2xE	1¼x11½	V-47½x53/64	6⅛	30	20	2	90	90	3	90	90
Champ. 2-G	'40	8¾	1¼xE	1¼x8¼	V-37¾x11/16	4⅛	30	20	1¾	90	90	2½	90	90
Com. 6-11A	'41	10¾	1¾xE	1¼x11½	V-47⅞x43/64	5	30	10	2	90	90	2½	Hy90	Hy90
Pres. 8-7C	'41	12½	1¾xE	1¼x12 13/16	V-47⅞x49/64	6¾	30	10	2	90	90	2½	Hy90	Hy90
Champ. 6-3G	'41	8¾	1¼xE	1¼x8¼	V-38¼x11/16	4⅛	30	10	1 11/16	90	90	2	Hy90	Hy90
Com. 6-12A	'42	10¾	1¾xE	1¼x11½	V-47⅞x49/64	5	30	10	2	90	90	2½	Hy90	Hy90
Pres. 8-8C	'42	12½	1¾xE	1¼x12 13/16	V-47⅞x49/64	6¾	30	10	2	90	90	2½	Hy90	Hy90
Champ. 6-4G	'42	8¾	1¼xE	1¼x8¼	V-38¼x11/16	4 1/16	30	10	1 11/16	90	90	2	Hy90	Hy90
Skyway, 5G	'46	8¾	1¼xE	1¼x8¼	V-38¼x11/16	4 1/16	30	10	1 11/16	90	90	2	Hy90	Hy90
Champ. 6G	'47	8¾	1¼xE	1¼x7	V-38¾x11/16	4 1/16	30	10	1 11/16	90	90	2	Hy90	Hy90
Com. 14A	'47	10.82	1¾	1¼x11	42¼x.802	5	30	10	2¼	90	90	2	Hy90	Hy90
Champion 7G	'48	10	1¼(M)	1¼(M)	38¾x11/16	4.14	30	10	1.2P	90	90	2.08	Hy90	Hy90
Commander 15A	'48	13	1¾(M)	1¼x11	42¼x.802	5.00	30	10	2P	90	90	2.50	Hy90	Hy90

For key to abbreviations see page 157

McQUAY-NORRIS WATER PUMP PARTS



GENUINE McQuay-Norris—the kind that gives your shop a reputation for service. Rust-less tin-plated impellers and chrome-plated shafts.

TIME TESTED
McQUAY-NORRIS
PISTON RINGS
PISTONS
PINS
VALVES
BEARINGS
PUMP PARTS
BOLTS-BUSHINGS
PROVEN IN SERVICE

Specified for replacement in all leading makes of cars.

★ *Turn to page 88 for more information*

COOLING AND LUBRICATION

Make and Model	Year	Cooling System—Capacity, Imp. Qts.	Lower Radiator Hose—Diameter and Length	Upper Radiator Hose—Diameter and Length	Fan Belt Type and Size	Crankcase Capacity—Imp. Qts.	S.A.E. Grade—Summer	S.A.E. Grade—Winter	Transmission Oil Capacity—Lbs.	S.A.E. Grade—Summer	S.A.E. Grade—Winter	Rear Axle Oil Capacity—Lbs.	S.A.E. Grade—Summer	S.A.E. Grade—Winter
WILLYS														
Four-48	'39	9	1 7/16x(q)	1 1/2x10 3/4	V-42 11/32x21/32	3 1/4	30	20	1	160	90	1	160	90
Overland 39	'39	9.4	1 7/16x(q)	1 1/2x9 3/4	V-42 11/32x21/32	3.2	30	20	1	90	90	1	90	90
Willys 440	'40	8.0	1 3/16x5 1/8	1 1/2x9 3/4	V-42 11/32x21/32	3.2	30	20	1	90	90	1	90	90
Americar	'41	9 1/2	1 7/16x9	1 1/2x10	V-44 11/32x21/32	3 1/8	30	20W	1	90	90	1	Hy90	Hy90
Americar	'42	9 1/2	1 7/16x6 1/2	1 1/2x10	V-44 11/32x21/32	3 1/8	30	20W	1	90	90	1	Hy90	Hy90
CJ-2A Univ. Jeep	'45	9 1/2	—	—	V-42 11/32x21/32	3 1/8	30	10W	2 1/2	EP90	EP90	2	Hy90	Hy90
CJ-2A Uni. Jeep	'47	9 1/2	—	—	V-42 11/32x21/32	3 1/8	30	10W	2 1/2	90	90	2	Hy90	Hy90
CJ-2A	'48	9	1 1/2	1 1/2	V	3 1/8	30	20W	6T	90	80	2 1/4f	90	90
4-63	'48	9	1 1/2	1 1/2	V	3 1/8	30	20W	2 1/2T	90	80	2	90	90
2-WD	'48	9	1 1/2	1 1/2	V	3 1/8	30	20W	3	90	80	3	90	90
4-WD	'48	9	1 1/2	1 1/2	V	3 1/8	30	20W	6	90	80	3f	90	90
6-63	'48	8	1 1/2	1 1/2	V	4 1/4	30	20W	2 1/2T	90	80	2	90	90

ABBREVIATIONS

(a)=110° angle moulded
A=43" outside diameter, 11/16" width, 7/16" thickness.
AA=19 up to serial No. 2A-1750 (Nov. 18/40); 21, all units after.
(b)=130° angle moulded
BB=19 up to serial No. 2D-250 (Nov. 18/40); 21, all units after.
(c)=Two pieces 1 1/2"x3 1/2", 1 1/2"x5 1/4".
(cb)=Two pieces 1 3/4"x4 1/4". By pass 1 1/4"x2".
cc=Two pieces 1 1/2"x3 1/2", 1 1/2"x5 3/4".
(cc)=Two pieces 1 1/2"x3 1/2", 1 1/2"x5 3/4". By pass 1"x1 1/2".
(C)=Two pieces 1 1/2"x3 1/2", 1 1/2"x5 1/2". By pass 1"x1 1/2".
(cd)=Two pieces 1 1/2"x3 1/4", 1 1/2"x5 3/4". By pass 1"x1 1/2".
CR=SAE 30 65 Deg. F. and up, SAE 20 10 Deg. F. to 65 Deg. F. SAE 10 10 Deg. F.-Down.
cxc=1 1/2"x3 1/2", 1 1/2"x4 3/4".
DD=Torpedo 6-5 qts.; De Luxe-4 1/4 qts.
(d)=Two pieces 1 1/2"x3", 1 1/2"x4 5/8".
E=Elbow type.
ET=Eng ish type.
(e)=Two pieces 1 3/4"x2 3/4", 1 3/4"x5 1/4".
ee=Two pieces 1 3/4"x3 1/2", 1 3/4"x4 1/4".
f=2-1/2# Front Axle
F=43 to 43 1/2x 3/8 inuhes
GG=Torpedo 6-3 3/4 pounds; Deluxe -2 3/4 pounds.
EP=Extreme Pressure
Hy=Special hypoid lubricant.
I=Inside diameter.
(k)=Two pieces 1 1/2"x2 3/4", 1 1/2"x5".
(M)=Moulded.
N=Right-1 1/4"x13 3/8"; left-1 1/4"x12 3/8".
(n)=Two pieces 1 1/2"x3 3/4", 1 1/2" x6 3/4".
O=Outside diameter.
P=Imperial pints.
(p)=Two pieces 1 1/2"x2 3/4", 1 1/2"x6 1/2".
pp=Two pieces 1 3/4"x8".
(q)=Two pieces 5 3/8"x2 1/8".
qq=Two pieces 1 1/2"x3 1/4".
r=Seven passenger sedan-3 pints.
S=Straight mineral gear oil.
SS=Two pieces 1 3/4"x4 1/2", 1 3/4"x8".
s=smaller radiator 14 qts.
t=Transmission and Transfer Case
T=Transmission and Overdrive
U=U.S. measure.
WO=Overdrive oil capacity 1 1/4 pints.
(w)=Windsor model-2 1/2 pints.
X=Right 13 3/8"; left 12 3/8".
•=120° Angle Moulded.
x=S.A.E. 30 over 90 per cent or hard summer driving at high speeds.
(x)=Two used.
(y)=Overdrive-5.1 pints.
z=43 to 43 1/2x 3/8 inches.
(z)=Overdrive-5 pints.
¶=2126 Model 130° Angle Moulded.
*=Above 90°F. use S.A.E. 40.
**=Special lubricant for Simplimatic transmission.
***=Series 2000, 2200-13 1/2; series 2500-15; series 2500, 2700, 2800-16.
†=With overdrive-3 pounds.
††=With overdrive-3 1/4 pounds.
‡=Low cold test engine oil used.
‡‡=Above 32°F. S.A.E. 20 or 20W.
As low as 10°F.-20W.
As low as —10°F.-10W.
Lower than —10°F. 10W plus 10 per cent kerosene (colorless, refined).
∅=Plus 10W engine oil.
§=Transmission oil. Alternatives-Engine oil S.A.E. 70 (summer) S.A.E. 50 (winter).
§§=Standard transmission only. 2 1/2 pts. (refill 4pts. if dry.) Hyda-Matic10 1/8 quarts. Cadillac Hydra-Matic Fluid only.
#=Simplimatic Transmission capacity C-38W, C-39, C-40-2 1/2 pints. Engine oil all weather No. 10W.
@=Smaller radiator 14 qts.

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STANDARD DRILL SIZES

Up to 1 Inch

On special jobs it is good to have drills varying by just a few thousandths of an inch.

Drill	Diam. Inches	Drill	Diam. Inches	Drill	Diam. Inches	Drill	Diam. Inches	Drill	Diam. Inches
80	.0135	49	.0730	21	.1590	17/64	.2656	1/2	.5000
79	.0145	48	.0760	20	.1610	H	.2660	33/64	.5156
1/64	.0156	5/64	.0781	19	.1660	I	.2720	17/32	.5312
78	.0160	47	.0785	18	.1695	J	.2770	35/64	.5469
77	.0180	46	.0810	11/64	.1719	K	.2810	9/16	.5625
76	.0200	45	.0820	17	.1730	9/32	.2812	37/64	.5781
74	.0225	44	.0860	16	.1770	L	.2900	19/32	.5937
73	.0240	43	.0890	15	.1800	M	.2950	39/64	.6090
72	.0250	42	.0935	14	.1820	19/64	.2969	5/8	.6250
71	.0260	3/32	.0937	13	.1850	N	.3020	41/64	.6406
70	.0280	41	.0960	13/16	.1875	5/16	.3125	21/32	.6562
69	.0292	40	.0980	12	.1890	O	.3160	43/64	.6719
68	.0310	39	.0995	11	.1910	P	.3230	11/16	.6875
1/32	.0313	38	.1015	10	.1935	21/64	.3281	45/64	.7031
67	.0320	37	.1040	9	.1960	Q	.3320	23/32	.7187
66	.0330	36	.1065	8	.1990	R	.3390	47/64	.7344
65	.0350	7/64	.1094	7	.2010	11/32	.3437	3/4	.7500
64	.0360	35	.1100	13/64	.2031	S	.3480	49/64	.7656
63	.0370	34	.1110	6	.2040	T	.3580	25/32	.7812
62	.0380	33	.1130	5	.2055	23/64	.3594	51/64	.7969
61	.0390	32	.1160	4	.2090	U	.3680	13/16	.8125
60	.0400	31	.1200	3	.2130	3/8	.3750	53/64	.8281
59	.0410	1/8	.1250	7/32	.2187	V	.3770	27/32	.8437
58	.0420	30	.1285	2	.2210	W	.3860	55/64	.8594
57	.0430	29	.1360	1	.2280	25/64	.3906	7/8	.9750
56	.0465	28	.1405	A	.2340	X	.3970	57/64	.8906
3/64	.0469	9/64	.1406	15/64	.2344	Y	.4040	29/32	.9062
55	.0520	27	.1440	B	.2380	13/32	.0462	59/64	.9219
54	.0550	26	.1470	C	.2420	Z	.4130	15/16	.9375
53	.0595	25	.1495	D	.2460	27/64	.4219	61/64	.9531
1/16	.0625	24	.1520	E	.2500	7/16	.4375	31/32	.9687
52	.0635	23	.1540	1/4	.2500	29/64	.4531	63/64	.9844
51	.0670	5/32	.1562	F	.2570	15/32	.4687	1	1.0000
50	.0700	22	.1570	G	.2610	31/64	.4843		

*—Tap Drills—For Sizes See Page 159, 160.

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TAP DRILL SIZES

The Society of Automotive Engineers recommends the use of drills of such a size as to leave from 75 per cent to 83 1–3 per cent of a full thread. The threads do not come to a sharp point, but have the "V" flattened a certain amount. The clearance prevents binding of the top and bottom of the threads. For average shop work use a drill that will leave about 75 per cent of a full thread.

NATIONAL COARSE THREAD SIZES

Tap Size	Threads Per Inch	Tap Size Drill	Percent Thread
No. 6	32	No. 36	78
No. 8	32	No. 29	70
No. 10	24	No. 25	75
No. 12	24	No. 16	72
1/ 4"	20	No. 7	75
5/16"	18	F*	77
3/ 8"	16	5/16	77
7/16"	14	U*	75
1/ 2"	13	27/64	78
9/16"	12	31/64	72
5/ 8"	11	17/32	80
3/ 4"	10	21/32	72

*—Letter Drills—For Sizes See Page 158

Write for

FREE LITERATURE . . .

if you are interested in having further information about the products advertised in this issue of THE CANADIAN SERVICE DATA BOOK. Refer to the "Yellow Section" on pages 83 to 88 and use the post cards on page 89.

This service is without obligation to you—simply sign your name, filling in the information required—and MAIL TODAY. We do the rest.

PROMPT SERVICE • NO OBLIGATION
NO RED TAPE

★ *Turn to page 88 for more information*

TAP DRILL SIZES

NATIONAL FINE THREAD SIZES

Tap Size	Threads Per Inch	Tap Size Drill	Percent Thread
No. 6	40	No. 33	77
No. 8	36	No. 29	78
No. 10	32	No. 21	76
No. 12	28	No. 14	73
1/ 4"	28	No. 3	80
5/16"	24	I*	75
3/ 8"	24	Q*	79
7/16"	20	25/64	72
1/ 2"	20	29/64	72
9/16"	18	33/64	65
5/ 8"	18	37/64	65
3/ 4"	16	11/16	77

*—Letter Drills—For Sizes See Page 158



★ *Turn to page 88 for more information*

SERVICE OPERATION TIME SCHEDULE

IN ORDER that the automotive technician may have all the required data available under one cover, MOTOR MAGAZINE'S Canadian Service Data Book includes a Flat Rate Time Schedule which contains estimated service operation time allowances for some of the most common jobs on passenger cars of the three major Canadian manufacturers.

Additions to this section will be made in future editions of Canadian Service Data Book, with complete coverage of all service operations on all cars sold and serviced in Canada.

The proper use of the service operation time schedule should increase the efficiency of any service department or garage. It may be used as a guide in determining job time allocations; also, time required for service operations may be quoted to the customer with service prices stated in advance.

The service charge for each operation is determined by multiplying the hourly rate by the number of hours and tenths of an hour required to complete the work. One tenth hour 0.1 equals 6 minutes. Ten tenths, 1.0, equals 60 minutes.

The time estimates shown in the schedule are based on the assumption that the mechanic works according to the instruction in the manufacturer's repair manual and that all the necessary tools are available and in good working order. The time includes all preparations to do the work; getting the necessary tools together for the job; securing the necessary parts for replacement; also, checking, inspection or road testing of the completed job.

FLAT RATE DATA—ENGINE

Operation Number	CHRYSLER	Plymouth	Dodge	Chrysler	De Soto	Time	Price
C-444	ENGINE PERFORMANCE INSPECTION—Includes: Check battery and line voltage, vacuum test, compression test, condenser test, coil test	ALL	ALL	C-38 C-39	ALL	.7 .9	
C-445	ENGINE TUNE UP—(MINOR)—Includes: Clean and adjust—spark plugs, adjust breaker points, check distributor cap and rotor, inspect distributor wires, reset ignition timing, clean air cleaner, fuel bowls and adjust carburetor idle	ALL	ALL	C-38 C-39	ALL	.9 1.1	
C-446	ENGINE TUNE UP—(MAJOR)—Includes Check with vacuum gauge, check battery voltage, clean and tighten battery cables and ground straps, tighten cylinder head and manifold studs, test vacuum, test compression, dress breaker points and adjust, check high tension and primary circuits for leaks, check distributor cap and rotor for cracks, clean and adjust spark plugs, set ignition timing, check coil, condenser and ignition wires, check and adjust generator charging rate. Examine all head light bulbs and refocus, check tail lamp bulbs, disconnect and blow out main fuel lines, clean fuel pump bowl, clean and reoil air cleaner, check fuel level and adjust carburetor, check windshield wiper, final check with vacuum gauge and road test	ALL	ALL	C-38 C-39	ALL	3.0 3.2	
C-447	IF NECESSARY TO ADJUST TAPPETS: (ADD)	ALL	ALL	C-38 C-39	ALL	1.1 1.3	
C-449	ADJUST TAPPETS	ALL	ALL	C-38 C-39	ALL	1.3 1.5	

Operation Number	FORD	Ford	Mercury	Monarch	Time	Price
MA-1-A	MAINTENANCE INSPECTION—1000 mile inspection preventive maintenance and lubrication. Follow operations as outlined in the Service Bulletin opr. MA-1-A. Includes[5] Check battery and connections, check lighting system, check exhaust system. Check wheels and tires, check steering connections, check carburetor adjustment, check clutch and brake pedal adjustments, check windshield wiper, check cooling system, tighten transmission and rear axle housing bolts, tighten electrical connections at generator, regulator, starting motor relay, coil, and distributor, clean spark plug porcelains, and adjust belts, plus all complete 1000 mile lubrication (extra charge for lubricant and material)		(A cars)		0.8	
MA-1-B	MAINTENANCE INSPECTION—5000 mile inspection, preventive maintenance and lubrication. Follow operations as outlined in Service Bulletin opr. MA-1-B. Includes a complete engine tune up, adjust service brakes, adjust hand brake, adjust toe-in, check clutch, tighten and adjust steering gear, adjust belts, align headlights, tighten rear axle housing bolts, tighten transmission housing bolts, tighten oil pan, tighten all electrical connections, inspect fuel system, adjust carburetor, inspect and tighten exhaust and intake systems, inspect and tighten springs, inspect and tighten cooling system, check operation of window lifts, align door striker plates and dovetails, and many other operations plus a complete 5000 mile lubrication (extra charge for lubricant and materials)		(A Ford, Monarch and Mercury cars) (A commercial cars)		5.0 5.0	
F-30	ENGINE TUNE-UP—(MAJOR)—Includes: Overhaul distributor, carburetor and fuel pump. Clean and adjust plugs. Tighten cylinder heads and manifolds. Clear air cleaners. Check starter generator and wiring	ALL	ALL	ALL	3.9	
F-10	ENGINE TUNE-UP—(MINOR)—Includes: Clean and adjust points and plugs. Adjust carburetor idle	ALL	ALL	ALL	1.0	

Operation Number	GENERAL MOTORS	Chevrolet	Pontiac	Oldsmobile	Buick	Time	Price
6-10	ENGINE — (TUNE COMPLETELY) — Includes: Test compression; clean and adjust spark plugs; test coil and consenser; clean and adjust distributor points; clean and inspect high tension wires and distributor cap; inspect, clean and tighten battery terminals, cables and connections; test and correct ignition timing and generator circuits for voltage drop; inspect and clean starting motor commutator and brushes; check operation of starting motor and switch; inspect and clean generator commutator and brushes; check and free up manifold heat valve; (Does not include removing manifold); adjust fan belt; tighten hose connections; inspect water pump for leaks; test operation of throttle and choke control; clean and re-oil carburetor and crankcase air cleaner; clean choke and fuel bowl filters; tighten fuel line connections clean fuel pump screen; warm upengine; set timing; torque cylinderhead and manifold bolts; adjust current and voltage regulator; adjust valve tappets; and adjust (carburetor) idle.	ALL				3.0	
			6 cyl			3.5	
			8 cyl			4.0	
				6 cyl		3.5	
				8 cyl		4.0	
					ALL	3.5	
6-1	ENGINE—(IGNITION AND CARBURETOR)—ADJUST—Includes: Clean and adjust Spark plugs and breaker points, set ignition timing, adjust carburetor idle, remove, clean and replace carburetor air cleaner.	ALL	6 cyl 8 cyl	6 cyl 8 cyl	ALL	.8 .9	

FLAT RATE DATA—VALVES

Operation Number	CHRYSLER	Plymouth	Dodge	Chrysler	De Soto	Time	Price
C-553	GRIND VALVES, RESEAT INSERTS and TUNE ENGINE (COMPLETE)	ALL	ALL	C-38 C-39	ALL	8.0 10.8	
C-554	REFACE VALVES ALL (REMOVED)	ALL	ALL	C-38 C-39	ALL	.8 1.0	
C-555	GRIND VALVES, RESEAT INSERTS and TUNE ENGINE—With any operation where cylinder head is off	ALL	ALL	C-38 C-39	ALL	6.8 8.6	
C-557	REPLACE INSERT WITH VALVE GRIND (EACH) (ADD)	ALL	ALL	ALL	ALL	.3	
C-559	REPLACE VALVE GUIDE WITH VALVE GRIND (EACH) (ADD)	ALL	ALL	ALL	ALL	.3	
C-561	REPLACE CYLINDER HEAD OR GASKET	ALL	ALL	C-38 C-39	ALL	2.1 2.6	
C-563	REPLACE BROKEN STUD—When Cylinder head is off	ALL	ALL	ALL	ALL	.5	
C-567	REPLACE TWO VALVE COVER PLATES or GASKETS	ALL	ALL	ALL	ALL	.8	
C-569	REPLACE VALVE SPRING—Includes: Remove cylinder head and remove carbon (one)	ALL	ALL	C-38 C-39	ALL	3.0 4.3	

Operation Number	FORD	Ford	Mercury	Monarch	Time	Price
F-60	VALVES—GRIND—Includes: Overhaul distributor	ALL	ALL	ALL	6.6	
F-60A	VALVES—GRIND (heads off)—Includes: Overhaul distributor	ALL	ALL	ALL	4.6	
F-70	VALVES, REFACE (Valves Out) (EACH)	ALL	ALL	ALL	.1	
F-100	VALVE SPRINGS—(RENEW)	ALL	ALL	ALL	4.1	
F-100A	VALVE SPRING (ONE) (RENEW)	ALL	ALL	ALL	3.2	
F-110	VALVE COVER GASKETS, (RENEW)	ALL	ALL	ALL	1.0	
F-80	CYLINDER HEAD—(REMOVE AND REPLACE OR RENEW)					
	(ONE HEAD)	ALL	ALL	ALL	1.3	
	(BOTH HEADS)	ALL	ALL	ALL	2.0	
F-90	CYLINDER HEAD GASKET, (RENEW)					
	(ONE)	ALL	ALL	ALL	1.3	
	(BOTH)	ALL	ALL	ALL	2.0	

Operation Number	GENERAL MOTORS	Chevrolet	Pontiac	Oldsmobile	Buick	Time	Price
6-5	VALVE TAPPETS—ADJUST—ENGINE RUNNING—Includes: Warm up engine before lashing valves	ALL				.9	
			6 cyl	6 cyl		1.3	
			8 cyl	8 cyl		1.4	
					ALL	1.1	
6-300	VALVE GRIND—Includes: Remove valve spring and check, remove, reface, reseat and grind valves, tune operation 6-1	ALL				5.6	
			6 cyl			6.5	
			8 cyl			7.8	
				6 cyl		6.6	
				8 cyl		7.9	
					ALL	7.3	
6-42	CYLINDER HEAD—REMOVE AND REPLACE OR REPLACE GASKET—Includes: Clean carbon and spark plugs. Heat engine for tightening, adjust tappets valve-in-head jobs	ALL				3.0	
			6 cyl	6 cyl		1.6	
			8 cyl	8 cyl		1.9	
					ALL	4.0	
6-40	CYLINDER HEAD—TIGHTEN WITH TORQUE WRENCH—Includes: Adjust tappets on valve-in-head engines	ALL				.9	
			ALL	ALL		.3	
					ALL	1.1	
6-45	CYLINDER HEAD—VALVE-IN-HEAD-ENGINES—INSTALL NEW—Includes: Change over all parts, recondition and adjust valves—tune operation 6-1	ALL				5.8	
					ALL	7.7	
6-B (Combination)	GRIND VALVES—(AT TIME OF TUNE-UP)	ALL				3.9	
			6 cyl			4.4	
			8 cyl			5.5	
				6 cyl		4.5	
				8 cyl		5.5	
					ALL	5.3	
6-C (Combination)	GRIND VALVES—(HEAD REMOVED)	ALL				2.1	
			6 cyl	6 cyl		4.0	
			8 cyl	8 cyl		5.0	
					ALL	3.0	

FLAT RATE DATA—PISTON RINGS

Operation Number	CHRYSLER	Plymouth	Dodge	Chrysler	De Soto	Time	Price
C-583	PISTON RINGS (REPLACE)—Tune engine (minor) and adjust tappets	ALL	ALL	C-28 C-38-C-34 C-30 C-36-C-37 C-39	ALL	9.1 11.3	

Operation Number	FORD	Ford	Mercury	Monarch	Time	Price
6149-A	PISTON RINGS (REPLACE)—Includes remove carbon (opr. 6050-G) and remove and clean oil pan and oil pump. (opr. 6600-B. (If equipped with aluminum cylinder heads add 1.0 hrs. for V-8 and 1.5 hrs. for V-12)		(A 60 h.p. engines) (V-8 engines—1932-34) (V-8 engines—1935-40) (V-8 engines—1941-47)		8.5 8.5 9.0 8.0	

Operation Number	GENERAL MOTORS	Chevrolet and Pontiac 22-22S 1940	Pontiac except 22-22S 1940	Oldsmobile	Buick
6-110	PISTON RINGS—(ALL)—REPLACE Includes[5] clean carbon—align and adjust connecting rods—tune oper. 6-1. COMBINATIONS 6-C to 6-E, 6-H	9.0	6 Cy. 7.0 8 Cy. 9.0	6 Cy. 7.1 8 Cy. 8.6	11.1
6-115	PISTON RINGS—(ONE PISTON)—REPLACE	5.2	6 Cy. 4.0 8 Cy. 5.0	6 Cy. 4.1 8 Cy. 4.6	6.2
	For each additional piston—Add	.5	.4	.4	.5

FLAT RATE DATA—CLUTCH OVERHAUL

Operation Number	CHRYSLER	Plymouth	Dodge	Chrysler	Desoto	Time	Price
C-203	CLUTCH DISC OVERHAUL (WITH FLUID DRIVE AND SIMPLIMATIC TRANSMISSION VACUUM OR HYDRAULIC)—(REPLACE)	—	—	C-28–C-34 C-36–C-37 C-38–3-C9	S-8–S-10 S-11	3.1	
C-204	CLUTCH DISC OVERHAUL (WITH FLUID DRIVE AND O.D.) (REPLACE)—			C-30	—	2.9	
C-204a	CLUTCH DISC OVERHAUL (TRANSMISSION REMOVED) (REPLACE)—	ALL	ALL	ALL	ALL	.6	

Operation Number	FORD	Ford	Mercury	Monarch	Time	Price
7563-B	CLUTCH DISC OVERHAUL—Change clutch disc or pressure plate. Add opr. 6675-A or 6675-B if necessary to remove engine oil pan. Time is controlled by method required in various units.		(By removing V-8 engine) (By moving rear axle back except Ford and Mercury—1941-42) (By removing jack shaft)		4.4 3.5 2.5	

Operation Number	GENERAL MOTORS	Chevrolet	Pontiac	Oldsmobile	Buick	Time	Price
6-710	CLUTCH DISC OVERHAUL, (REPLACE)[5] COMBINATIONS 6-L, 6-Q, 6-R		3.7	20, 22 Others	3.4 2.5	2.5	5.2

FLAT RATE DATA—TRANSMISSION

Operation Number	CHRYSLER	Plymouth	Dodge	Chrysler	De Soto	Time	Price
C-1012	TRANSMISSION (Conventional Type) (RECONDITION)—Includes remove and install	ALL	ALL	C-28–C-30 C-34–C-38	S-8–S-10	4.2	
C-1013	TRANSMISSION AND O.D. (RECONDITION)—Includes—remove and install			C-30	—	5.9	
C-1014	TRANSMISSION (RECONDITION) Simplimatic (Vacuum operated). Includes—remove and install			C-28–C-34 C-36–C-37	S-8–S-10	5.5	
C-1015	TRANSMISSION (RECONDITION) Simpimatic (Hydraulic operated). Includes—remove and install			C-38–C-39	S-11	4.5	
C-1016	TRANSMISSION (RECONDITION) (CONVENTIONAL TYPE) (Removed)	ALL	ALL	C-28–C-30 C-34–C-38	S-8–S-10	2.6	
C-1017	TRANSMISSION (RECONDITION) SIMPLIMATIC (VACUUM OPERATED) (Removed)			C-28–C-34 C-36–C-37	S-8–S-10	4.0	
C-1018	TRANSMISSION (RECONDITION) SIMPLIMATIC HYDRAULIC OPERATED (Removed)			C-38–C-38	S-11	3.0	
	(VACUUM OPERATED). Includes—remove and install						
C-1015	TRANSMISSION (RECONDITION) SIMPLIMATIC (HYDRAULIC OPERATED). Includes—remove and install						

Operation Number	FORD	Ford	Mercury	Monarch	Time	Price
7000-A	TRANSMISSION (RECONDITION)—Recondition transmission and clutch when necessary to remove engine from chassis. Add opr. 6600-C if necessary to remove oil pan. A Ford, Monarch and Mercury V-8 engines.				6.4	
7000-B	TRANSMISSION (RECONDITION)—Recondition transmission and clutch when not necessary to remove the engine from chassis. Add opr. 6675-A if necessary to remove engine oil pan. Time is controlled by method required in various units.		(By moving car axle back except Ford and Mercury 1941-42		5.5	
			(By removing jack shaft)		4.5	
7000-C	TRANSMISSION (RECONDITION)—Recondition transmission and clutch when engine has already been removed for other work. Add opr. 6675-B if necessary to remove engine oil pan for truck clutch.		(All models)		2.5	
7000-D	TRANSMISSION (RECONDITION)—Recondition transmission when brought in.		(All models)		1.5	
MA-533-B	TRANSMISSION LUBRICANT—Change lubricant in transmission including flushing (extra charge for lubricant and flushing material).		(All model cars and trucks (including C.O.E.)		0.2	

Operation Number	GENERAL MOTORS	Chevrolet	Pontiac	Oldsmobile	Buick	Time	Price
7—5	TRANSMISSION[5] (ASSEMBLY) (OVERHAUL)—Includes—Remove and replace transmission, overhaul universal joint, torque tube drive	Vacuum shift	5.2		4.3	4.3	7.6
		Manual shift	4.9				
7—7	TRANSMISSION (ASSEMBLY) (OVERHAUL)—Removed		2.7		2.8	2.8	3.4

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A HANDY CONVERSION CHART

IN HOURS AND TENTHS TO DOLLARS AND CENTS

Hrs.	$1.50	$1.60	$1.75	$2.00
.2	.30	.35	.35	.40
.5	.75	.80	.90	1.00
.7	1.05	1.15	1.25	1.40
1	1.50	1.60	1.75	2.00
1.2	1.80	1.95	2.15	2.40
1.5	2.25	2.40	2.65	3.00
1.7	2.55	2.75	3.00	3.40
2	3.00	3.20	3.50	4.00
2.2	3.30	3.55	3.85	4.40
2.5	3.75	4.00	4.40	5.00
2.7	4.05	4.35	4.75	5.40
3	4.50	4.80	5.25	6.00
3.2	4.80	5.15	5.60	6.40
3.5	5.25	5.60	6.15	7.00
3.7	5.55	5.95	6.50	7.40
4	6.00	6.40	7.00	8.00
4.2	6.30	6.75	7.35	8.40
4.5	6.75	7.20	7.90	9.00
4.7	7.05	7.55	8.25	9.40
5	7.50	8.00	8.75	10.00
5.2	7.85	8.35	9.15	10.40
5.5	8.25	8.80	9.65	11.00
5.7	8.55	9.15	10.00	11.40
6	9.00	9.60	10.50	12.00
6.2	9.30	9.95	10.85	12.40
6.5	9.75	10.40	11.40	13.00
6.7	10.05	10.75	11.75	13.40
7	10.50	11.20	12.25	14.00
7.2	10.80	11.55	12.60	14.40
7.5	11.25	12.00	13.15	15.00
7.7	11.55	12.35	13.50	15.40
8	12.00	12.80	14.00	16.00
8.2	12.30	13.15	14.35	16.40
8.5	12.75	13.60	14.90	17.00
8.7	13.05	13.95	15.25	17.40
9	13.50	14.40	15.75	18.00
9.2	13.85	14.75	16.15	18.40
9.5	14.25	15.20	16.65	19.00
9.7	14.55	15.55	17.00	19.40
10	15.00	16.00	17.50	20.00
11	16.50	17.60	19.25	22.00
12	18.00	19.20	21.00	24.00
13	19.50	20.80	22.75	26.00
14	21.00	22.40	24.50	28.00
15	22.50	24.00	26.25	30.00
16	24.00	25.60	28.00	32.00
17	25.50	27.20	29.75	34.00
18	27.00	29.80	31.50	36.00
19	28.50	30.40	33.25	38.00
20	30.00	32.00	35.00	40.00
21	31.50	33.60	36.75	42.00
22	33.00	35.20	38.50	44.00
23	34.50	36.80	40.25	46.00
24	36.00	38.40	42.00	48.00
25	37.50	40.00	43.75	50.00
26	39.00	41.60	45.50	52.00
27	40.50	43.20	47.25	54.00
28	42.00	44.80	49.00	56.00
29	43.50	46.40	50.75	58.00
30	45.00	48.00	52.50	60.00
31	46.50	49.60	54.25	62.00
32	48.00	51.20	56.00	64.00
33	49.50	52.80	57.75	66.00
34	51.00	54.40	59.50	68.00
35	52.50	56.00	61.25	70.00
36	54.00	57.60	63.00	72.00
37	55.50	59.20	64.75	74.00
38	57.00	60.80	66.50	76.00
39	58.50	62.40	68.25	78.00
40	60.00	64.00	70.00	80.00
41	61.50	65.60	71.75	82.00
42	63.00	67.20	73.50	84.00
43	64.50	68.80	75.25	86.00
44	66.00	70.40	77.00	88.00
45	67.50	72.00	78.75	90.00
46	69.00	73.60	80.50	92.00
47	70.50	75.20	82.25	94.00
48	72.00	76.80	84.00	96.00
49	73.50	78.40	85.75	98.00
50	75.00	80.00	87.50	100.00
51	76.50	81.60	89.25	102.00
52	78.00	83.20	91.00	104.00
53	79.50	84.80	92.75	106.00
54	81.00	86.40	94.50	108.00
55	82.50	88.00	96.25	110.00
56	84.00	89.60	98.00	112.00
57	85.50	91.20	99.75	114.00
58	87.00	92.80	101.50	116.00
59	88.50	94.40	103.25	118.00
60	90.00	96.00	105.00	120.00

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